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ABSTRACT

The purpose of this competency-based education program is to help interested school districts implement, manage, and evaluate a comprehensive program at the high school level. The final report discusses the definition and collection of selective practices that have potential for further use; targeted development activities, including planning and training services; and dissemination of the products resulting from the program's analysis of promising practices and development programs. The appendices comprise abstracts of promising practices, an overview of dissemination activities, and procedures for product development and quality control. Also included are an addendum to the final report and a paper on the competency-based science program at Rex Putnam High School (Milwaukee, OR) with a concluding list of recommendations for developing a local competency-based curriculum. (WD)

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FINAL

REPORT

For the Grant Period

June 1, 1978 - November 30, 1979

Competency Based Education Program
Robert N. Gourley, Director
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204

November 30, 1979

EA 013 395
pt. 1

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November 30, 1979

Competency Based Education Program
Northwest Regional Educational Laboratory

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INTRODUCTION

In the Competency Based Education Program 5 Year Plan, dated April 1978, and in subsequent Technical Proposals, dated April 14, 1978 and July 2, 1979, the Program purposes were described as follows:

Purpose

The Program will develop, evaluate and disseminate an integrated system designed to help interested school districts plan, implement, manage and evaluate a comprehensive competency based education program at the high school level. The system will include:

- A set of recommended steps to be followed when planning, implementing, managing and evaluating a CBE program
- A set of products and processes which illuminate and facilitate these steps
- A set of suggested procedures to use when adopting and/or adapting these steps, products and processes to meet local district needs

NWREL will build the system largely from identified extant promising practices using a limited number of program developed products/processes where such practices are not available.

In addition to the Program purpose statement, the 5 Year Plan and Technical Proposals set forth a Program definition of a Competency Based Education Program. The original definition has been refined based on program experience to read as follows:

Competency Based Education: Program Definition

A competency based education program is one which contains these critical elements:

1) a set of student competencies which have a clear, direct relationship to successful functioning in adult life

2) a written curriculum which specifies student activities that will help students acquire the set of life-role application competencies

3) an instructional system which involves students in these activities

4) an outcome assessment system which assesses competency achievement in adult life settings or at least in simulated adult life settings

5) community involvement in establishing competencies, in teaching toward the competencies and in assessing competency achievement

6) a student progress report system which:
   - allows students and parents to track individual student progress toward competency achievement
   - provides summary student progress information to the community
   - provides data for informed management decisions on needed program revisions

7) organizational management and support activities

This overall purpose and definition served as the basis for the Scope of Work (Section 1 of this Report) and the work documentation which follows (Section 2, Promising Practices; Section 3, Targeted Development; Section 4, Dissemination; Sections 5 and 6, Evaluation Designs and Reports.)

SECTION I

SCOPE OF WORK

SCOPE OF WORK: COMPETENCY BASED EDUCATION PROGRAM

Component 1.0: Promising Practices

Objective 1.1: To define, collect and synthesize selected practices that have potential for further CBE use

Procedure:

1.1.3 Develop a classification system, by validation levels, for selected practices

(November 30, 1978)
Product: Draft collection and classification system to NIE and CBE Network for review

Documentation: The draft collection and classification system was reviewed by the CBE Network on September 25-27, 1978

The draft collection and classification system was forwarded for NIE review on November 30, 1978

1.1.8 Prepare revised collection

(November 30, 1979)
Product: CBE collection of promising practices for NIE and CBE Network

Documentation: Section 2 of this report describes the process of collecting and screening promising practices. Abstracts of the collection are listed in Appendix 1.

A copy of this report has been forwarded to CBE Network members

The present collection has been entered in NWREL's R_x Depository

Component 2.0: Targeted Development

Objective 2.1: To assist pioneer sites in conducting targeted development activities, including planning and training services, product development and documentation and evaluation

Procedure:

2.1.3

(July 31, 1978)
Product: List of products and timeline to NIE for review

Documentation: The list of products and timeline was forwarded to NIE as scheduled

Procedure:

2.1.5 Document targeted development activities

(November 30, 1978)
Product: Progress report on development and training activities to NIE and CBE Network

Documentation: The progress report was submitted to NIE and to CBE Network as scheduled

2.1.7 Complete prototype products/processes

(Dates as established in 2.1.3 above)
Product: Drafts of prototypes to NIE and CBE Network for review

Documentation: Drafts of prototypes were submitted as scheduled. See Section 3, Page 10 for a list of submitted products and submission dates

2.1.10 Document targeted development activities

(November 30, 1979)
Product: Camera ready copy of refined/revised products and procedures; report of targeted development activities, field test results and documentation results

Documentation: Camera ready copy of refined/revised products and processes were submitted on November 30, 1979. The report of targeted development activities and field test and documentation results are described in Section 3, Part II, Targeted Development and Section 5, Evaluation Designs and Reports

Component 3.0: Dissemination

Objective 3.1: To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities

Procedure:

3.1.1 Develop comprehensive dissemination plan with Network and RD_x assistance

(November 30, 1978)
Product: Dissemination plan

Documentation: The dissemination plan was submitted to NIE on November 30, 1978

Procedure:

3.1.2 Prepare fliers that describe briefly the areas of targeted development and the promising practices that the CBE Program is addressing and the kinds of information available (Information)

3.1.3 Develop and make available to RD_x and the Network occasional papers or executive summaries, picking up on issues by developmental area (Spread)

3.1.4 Upon request, RD_x sends to interested persons and groups 5-10 occasional papers or executive summaries giving examples of how specific CBE issues have been addressed (these examples may be from CBE's targeted development work or promising practices work) (Choice)

3.1.5 (1) Potential users contract with CBE Program for technical assistance in installing systems generated during targeted development; (2) CBE Program brokers promising practices, i.e., finds help other than by CBE staff for potential users (Implementation)

(November 30, 1979)
Product: Fliers describing CBE Program development work and promising practices; occasional papers or executive summaries on issues; and developed plan and procedures for CBE technical assistance and brokering services

Documentation: Fliers, occasional papers and executive summaries have been forwarded to NIE (See Table 2, page 15.) Remaining dissemination products are described in Section 4.

SECTION 2

PROMISING PRACTICES

Component 1.0: Promising Practices

Objective 1.1: To define, collect and synthesize selected practices that have potential for further CBE use.

The Promising Practices component is responsible for identifying and collecting fugitive materials and process descriptions which fit the Program's concept of competency based education. As indicated in the introduction, by our definition any program which calls itself competency based must contain these critical elements:

1) a set of student competencies which have a clear, direct relationship to successful functioning in adult life

2) a written curriculum which specifies student activities that will help students acquire the set of life-role application competencies

3) an instructional system which involves students in these activities

4) an outcome assessment system which assesses competency achievement in adult life settings or at least in simulated adult life settings

5) community involvement in establishing competencies, in teaching toward the competencies and in assessing competency achievement

6) a student progress report system which:

   o allows students and parents to track individual student progress toward competency achievement

   o provides summary student progress information to the community

   o provides data for informed management decisions on needed program revisions

7) organizational management and support activities

The CBE Program work component Promising Practices is intended to identify existing activities, processes and products that facilitate the building of the model described above. The staff believes that these critical elements are important to CBE in their ability to bring about change and the process of implementing competency based education.

Another major outcome in the identification of promising practices is its utility to secondary schools. CBE has rapidly moved across America as a potential solution to the declining public support to secondary education. Justified or not, the public is concerned about the quality of schooling. The word competence alone gives the feeling of accountability (being able to demonstrate ability, skill, at some level of measurement). General public interest is not directed toward the process by which schools instruct, but rather, toward what the student is able to do. Thus, the national interest in CBE is easily understood as a way to improve secondary education. It is important then that any practice identified as being suited to the CBE model must also be capable of having utility to secondary schooling. Therefore, the following criteria were employed in the screening of potential CBE promising practices:

1) Is the practice currently in use in a secondary school?

2) Does it work? What is the evidence?

3) Does it fit in our conceptual framework for CBE?

4) Is it transportable?

Following in Table 1 is a current listing of CBE promising practices including major category designations. Also included in Appendix 1 are program abstracts of the collection.

TABLE 1

COMPETENCY BASED EDUCATION PROGRAM

PROMISING PRACTICES

SETTING LIFE-ROLE RELATED COMPETENCIES	CURRICULUM	INSTRUCTION	ASSESSMENT	COMMUNITY INVOLVEMENT	REPORTING FUNCTIONS	MANAGEMENT & SUPPORT ISSUES	
			X				Competency Test Items, Baker School District #5J
		X					Diagnostic Kit and Strategies Kit, Seattle Public Schools Minimum Competency Assurance Program
	X						Rex Putnam High School Unified Science Units
X							High School Graduation Requirements and Support Materials, Fairfield-Suisun Unified School District,CA
	X						K-12 Curriculum Guides, Parkrose Public Schools
							John H. Reagan Fundamental School, Houston Independent Public School District
X							Materials Related to Competency Based Education, Craig City Schools, Alaska
	X						Secondary Curriculum Guide, North Slope Borough School District
						X	Suggested Guidelines for the Development & Implementation of a Competency Based Education Program, GA
	X						Elementary and Secondary Curriculum Guides, Adak, AK, Region Schools, Southwest Region Schools, Dillingham, AK, and Galena City Schools
					X		CBE Recordkeeping for the Classroom: Suggestions and Samples
					X		Tracking and Reporting School-Leaving Competencies
	X						Using Branching Programs to Individualize Instruction

SETTING LIFE-ROLE RELATED COMPETENCIES	CURRICULUM	INSTRUCTION	ASSESSMENT	COMMUNITY INVOLVEMENT	REPORTING FUNCTIONS	MANAGEMENT & SUPPORT FUNCTIONS	
X							Life Role Competencies Survey Results: A Process Report, School District of Lancaster, PA, Project 81
	X						Competency Based Curriculum Development for Rural Secondary Schools in Alaska: A User's Guide
X →							Competency Based Education Sourcebook
			X				Measuring Performance: Verifying Competencies Through Observation and Judgement
						X	Plan for the Development of Comprehensive Competency Based Education Program for Fremont County School District #25, Riverton, WY
	X						A Program of Studies, Lower Yukon REAA, 1977-1978
			X				NWEA Item Bank
			X				Program Evaluator's Guide, CA Evaluation Improvement Project
		X					Remediation for Secondary School Students
				X			Community Involvement in Setting Graduation Outcomes
			X				Evaluating the Educational Outcomes of Your Local Schools, A Manual for Parents and Citizens
X							Michigan Life Role Competencies Project
		X					Guided Study Center: Contracting with High School Students
					X		Grades, Credits and Competencies in High School Courses: A Practical Application
		X					The Schoolcraft Project: A Teacher Developed, Precision Teaching Program

SECTION 3

TARGETED DEVELOPMENT

Component 2.0: Targeted Development

Objective 2.1: To assist pioneer sites in conducting targeted development activities including planning and training services, product development and documentation and evaluation.

Part I: Targeted Development Products

The following products were proposed for completion during the period of the grant June 1, 1978 to November 30, 1979:

1) Workshop in Diagnostic/Prescriptive Teaching
scheduled completion date 11/30/78

2) Workshop in Orientation to Self-Directed Learning
scheduled completion date 4/1/79

3) Curriculum Development for Basic Language Arts Skills
scheduled completion date 9/15/78

4) Instructional Recordkeeping Systems
scheduled completion date 1/31/79

5) An Interdisciplinary Approach to a CBE Basic Skills Program
scheduled completion date 3/15/79

6) Program Assessment System
scheduled completion date 6/15/79

7) Workshop in Student Assessment
scheduled completion date 2/15/79

All of the identified products were completed on schedule and forwarded to NIE. They have either been reviewed by development staffs and CBE Network members or have been field tested in at least two settings--one in Oregon and one in Georgia. Specifically, the history and revised titles and/or content of each of the products is as follows:

A. Products 1, 2, 6, 7 have been collected and expanded into a set of ten teacher training modules. The modules were developed based on teacher requests for CBE implementation assistance, and deal primarily with curriculum and instruction at the classroom level. While each was viewed as a stand-alone document that could be used by an experienced teacher trainer without additional assistance from the CBE Program staff; to date, only the Georgia Department of Education has used them in this way. Each module has also been tested in at least two sites, in Oregon and Georgia, and revised based on participant feedback and most have been tested at least four times.

Each of the modules relates to one or more of the seven components of effective CBE programs. Table 2, Page 15, reveals the relationship of the content of the modules and other developed products to the seven CBE components. Copies of each module have been forwarded to NIE. Program staff project continued field testing and revision of modules. Some commercial interest has been expressed in the modules in a further refined form.

B. Product 3 with an account of the development process has been forwarded to NIE. The product is in use at Jefferson High School.

C. Product 4 has been reviewed by the Network and site staffs and appears to be a useful review of the needs for recordkeeping and samples of how problems are being dealt with at the local level. It is a companion piece to the CBE Program document Tracking and Reporting School Learning Competencies (#33 in Table 2), which deals primarily with building level recordkeeping. Both documents have been forwarded to NIE.

D. Product 5 has been incorporated into Instruction and Assessment for Life Related Competencies: A CBE Sampler and has been forwarded to NIE. Current plans call for the revision of this document from a full set of competencies with related learning activities and assessment measures to a broad view of two basic skill competencies and their application to other competencies--e.g., family living, citizenship, etc. The product was reviewed by Network members and pronounced useful to practitioners, especially at the classroom and building levels.

E. Other Products:

While the products listed above complete the program's obligations under the grant, the following products were also developed in response to program, field site or dissemination needs. All have been forwarded to NIE.

(Table 2 Numbering)

14. CBE: What Is It? A slide and tape introduction to the basic concepts of CBE, produced by the program staff. Fifteen minutes.

15. Making Up Competencies: Some Alternatives - Most school districts which have chosen to require certification of competence as a prerequisite to graduation have encountered problems with students who do not achieve the competencies within the required courses. This paper looks at some of the solutions being used in various districts in Oregon.

16. Grading, Competencies and Credits - All three pioneer sites' staffs expressed concern with the relationships among course grades, course credits and competency achievement. This paper examines how nine selected Oregon districts are dealing with the problem.

17. Learning to Manage a Minimum Competency Testing Program - A speech delivered at AACTE and requested often by practitioners. It is an awareness level look at CBE components. It is included in ERIC.

18. CBE Brochure - Provides information about program work.

19. Local Curriculum Development for CBE - Written by a local school science department chair, this paper describes a process for developing CBE curriculum at the building/department level. While the content area is science, the process is sufficiently generic and can be applied to other content areas.

20. CBE in Oregon - Designed to answer the question "What does CBE in Oregon look like?", this paper compares CBE in Oregon to the program definition of CBE.

21. CBE: What is it and how do we know if we have it? - Designed to deliver awareness level information about the CBE components, this article was published in the Portland State University Film Library Newsletter.

22. CBE is for students - one page awareness level handout to demonstrate the effects of CBE from the students' perspective.

23. Analysis of Planned Course Statement - One pioneer site, about 5 years into implementing CBE, requested that the program assist them in analyzing their planned course statements and overall curriculum delivery system for the competencies. The process and forms used are described in this document. The information was used to target areas for further curriculum development. The process could be used by any district several years into a CBE implementation cycle to see whether or not they are on target.

24. A Framework for Analyzing CBE / An approach to RTD - A technical paper for a research-oriented audience which attempts to (1) analyze CBE in terms of independent and dependent variables; and, (2) specify the elements of a technology that could logically be derived for the CBE theoretical perspective.

25. CBE: Systems for Maximum Performance - A look at the elements of competency based education using systems theory as a unifying framework.

26. Position Paper: The Crux of CBE and Some Related Policy and Management Issues - describes the seven key components of a CBE program and relates this to policy and management issues.

27. Schooling for Competence - Awareness level speech on CBE, primarily geared to lay audiences, and designed to illuminate the concept of competence as a function of mastering life-related competencies.

28. CBE and Traditional Schooling: Some Contrasts - a one-page handout focusing on the seven key CBE components and pointing out contrasts between CBE programs and conventional schooling.

29. An Invitation to CBE - This piece gives a general audience a picture of what CBE could be in the ideal world of education by looking at the school day for two students. Creative, dynamic and progressive options in CBE are presented in these scenarios of how CBE could affect students.

30. Relating Course Goals and Graduation Competencies - This document uses the 67 competencies from document 31 and compares them to goal statement from the Tri-County Course Goal Collection. Teachers can then see how district competencies can be a part of courses in Home Economics, Music, Industrial Arts and similar courses, as well as basic required courses. Joint publication of this document with the Tri-County Course Goal Consortium is being explored.

31. Identifying High School Graduation Competencies: Issues and Episodes - Identifies the issues encountered in developing school exit-level competencies and presents examples of 67 competencies with accompanying performance indicators.

32. CBE Sourcebook, second edition. The Sourcebook contains CBE resources listed in the categories of instructional outcomes, outcomes attainment measures, instructional resources and management resources.

33. Tracking and Reporting School Learning Competencies - Describes the issues and problems associated with keeping competency records in the school building and explores several options, both computerized and manual for maintaining records.

34. High School Graduation Competencies and Measurement Items - Indexes NAEP and APL items to the 67 competencies listed in Product 31.

35. Competency Based Education: Beyond Minimum Competency Testing - A collection of articles on issues and problems associated with CBE nationwide from persons with expertise in both the scholarly and practitioner communities. The book will be published by Teachers College Press in early Summer, 1980.

Products 31, 32, and 33 are distributed by the NWREL Marketing Office and all products listed have been forwarded to NIE.

Table 1 reveals the relationships between the developed products and the seven key elements of CBE.

TABLE 2

KEY ELEMENTS OF COMPETENCY BASED EDUCATION AND DEVELOPED PRODUCTS AND PROCESSES

(KEY to product type:
IP= issue paper
TM= training module
HO= handout/brochure)

Product Title and Type	SEVEN KEY ELEMENTS OF CBE	● competencies which relate to successful functioning in out-of-school life roles.	● written curriculum specifying learning activities to assure student acquisition of the competencies.	● instructional system which delivers appropriate learning activities to students.	● assessment of outcomes in real or simulated real life settings, for competency certification, and for instructional diagnosis and prescription.	● community involvement in setting, teaching and assessing the competencies.	● reporting on assessment results to students, parents, community; use of data on assessment for program modification.	● organizational management and support systems.
1. Motivating Students TM				X				
2. Adapting Instruction to Student Differences TM			X	X				
3. Strategies for Instructional Grouping TM				X				
4. Classroom Management for Personalized Instruction TM				X				
5. Communication Skills TM				X				
6. Developing Learning Packages TM			X					
7. The Self-directed Learner TM				X				
8. Assessing Student Competence TM					X			
9. Evaluating Program Effectiveness TM					X	X	X	
10. Introduction to Mastery Learning TM			X	X				
11. Curriculum Development for Language Arts IP			X		X			

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12. CBE Recordkeeping for the Classroom IP							X	
13. Instruction and Assessment for Life-Related Comp. IP		X	X		X			
14. CBE: What is it? slide/tape		X	X	X	X	X	X	X
15. Making up Competencies Some Alternatives IP			X	X			X	
16. Grading, Competencies and Credits IP							X	
17. Learning to Manage a Minimum Competency Program IP		X	X	X	X	X	X	X
18. CBE Program Brochure HO		X	X	X	X	X	X	X
19. Local Curriculum Development for CBE IP			X	X				
20. CBE in Oregon IP			X	X	X	X	X	
21. CBE: what is-it and how do we know if we have it? IP		X	X	X	X	X	X	X
22. CBE is for Students HO		X	X	X	X	X		

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23. Analysis of Planned Course Statements IP		X	X					
24. A Framework for Analyzing CBE IP		X	X	X	X	X	X	X
25. CBE: Systems for Maximum Performance IP		X	X	X	X	X	X	X
26. The Crux of CBE & Related Policy Questions IP		X	X	X	X	X	X	X
27. Schooling for Competence IP		X	X	X	X	X	X	X
28. CBE and Traditional Schooling HO		X	X	X	X	X	X	X
29. An Invitation to CBE IP		X		X	X	X	X	
30. Relating Course Goals and Graduation Competencies IP		X	X					
31. Identifying High School Grad. Comps.: Issues & Examples IP		X				X		
32. CBE Sourcebook, 2nd ed.		X	X	X	X	X		X
33. Tracking and Reporting School Leaving Competencies IP							X	X

TABLE 2

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(KEY to product type:
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Product Title and Type	SEVEN KEY ELEMENTS OF CBE	• competencies which relate to successful functioning in out-of-school life roles.	• written curriculum specifying learning activities to assure student acquisition of the competencies.	• instructional system which delivers appropriate learning activities to students.	• assessment of outcomes in real or simulated real life settings, for competency certification, and for instructional diagnosis and prescription.	• community involvement in setting, teaching and assessing the competencies.	• reporting on assessment results to students, parents, community; use of data on assessment for program modification.	• organizational management and support systems.
34. High School Graduation Comps. & Measurement Items		X			X			
35. Competency Based Education Beyond Minimum Comp. Testing		X	X	X	X	X	X	X

Part II: Targeted Development Activities and Field Test Results

Field development activities began with planning meetings with the building principal and a district representative. All 3 pairs examined a matrix of tasks derived from the six components of CBE and descriptions of constraints to their implementation. From this early listing of each school's needs, a planning group appointed by the principal in each site refined the tasks and clarified the intent of the work. The planning groups have continued to meet quarterly to review on-going work with individual teachers and departments in the school and to negotiate new work. The planning groups from all three sites also met together to share the results of work in each of the sites to evaluate the CBE Program's effectiveness and share progress reports.

In all cases the planning process for the targeted development work has followed this model.

1. A need is expressed by the pioneer site.
2. CBE staff-discuss the need and search existing materials and promising practices to find materials that may answer the need.
3. If something cannot be found and if the need seems more generic than site-specific, the CBE staff will either assist site staff in accomplishing the work, or will complete the work for the staff.
4. As appropriate, developed processes and products are used either as products for dissemination or as promising practices.

The complete log of the activities in each of the pioneer sites is contained in the evaluation report appendix. Brief summaries of the major activities and outcomes by site follow.

SAM BARLOW HIGH SCHOOL - GRESHAM, OREGON

1. Staff training in individualizing/personalizing instruction. Components of this one-day session were:
    - classroom management for individualizing instruction
    - adapting instruction to student ability levels
    - strategies for self-directed learning
2. Staff training in individualizing/personalizing instruction. Components of this one-day session were:
    - motivating students through individualized instruction
    - developing a student learning package

Released time for teachers for both sessions was funded by the CBE program. Graduate course credit for participation in these sessions and individually-contracted work was arranged through the Division of Continuing Education, Oregon State System of Higher Education.

Product Outcome: Training Modules 1, 2, 4, 6 and 7

3. Individual training and consultation has been on-going and has included:

   - techniques and procedures for an interdisciplinary approach to team teaching: 9th grade Language Arts, Social Studies, Science
   - identifying and developing program evaluation instruments/ systems for the levels classes (in process)
   - providing information for community, school board and central office dissemination about CBE activities
   - reviewing present recordkeeping and exploring ways in which to simplify this system
   - development of learning activities for a new course in Applied Geometry
   - development of student learning packages in Personal Finance, Home Decoration and Furnishings, Electronics, Social Studies

   Product Outcome: CBE Recordkeeping for the Classroom, training modules 8 and 9 (Assessing Student Competence and Evaluating Program Effectiveness), Instruction and Assessment for Life Related Competencies

CLACKAMAS HIGH SCHOOL - MILWAUKIE, OREGON

1. Staff training in revising planned course statements and developing assessment items for the competencies. The tasks for the half-day work session were:

   - review and revise planned course statements by department
   - examine district and course competencies to see if they cover the scope of the course, are clearly written so that all group members agree on their meaning and represent statements of student learning outcomes

2. Planning group sessions in analyzing major problems of the current recordkeeping system.

3. An analysis of the district competencies by the CBE program staff with input from district curriculum specialists.

4. An analysis of course competencies for all required courses with suggestions for revision.

5. Development of a common CBE vocabulary/glossary.

6. Planning for a competency makeup center.

Released time for planning group sessions was provided by CBE Program funds.

Product Outcome: CBE Recordkeeping for the Classroom, Analysis of Planned Course Statements, Making Up Competencies: Some Alternatives, Grading, Competencies and Credits

JEFFERSON HIGH SCHOOL - PORTLAND, OREGON

1. Development of planned course statement including student learning outcomes, assessment items and recordkeeping system for 9th grade Language Arts Skills class.
2. Staff training in individualizing/personalizing instruction with related independent work on a contracted basis for those participants wishing DCE graduate credit. Components of this 20-hour course were:
    - classroom management for personalized instruction
    - adapting instruction to student ability and interest levels
    - strategies for self-directed learning
    - motivating students via personalized instruction
    - evaluation: student, program and teaching effectiveness
    - communication skills and interpersonal relationship skills in teaching
3. Review of present recordkeeping system for math department which resulted in some developed samples and recommended modifications.
4. Curriculum development work with Social Studies, English and Health Departments in summer workshop sessions. Provided sample performance indicators and assessment items.
5. Training for one staff member in using the COKER (Classroom Observations Keyed to Effectiveness Research) instrument.
6. Refinement of initial Basic Skills Language Arts Planned Course Statement and materials. Development of a writing sample assessment is underway.

Released time for teachers was provided by CBE Program funds.

Product Outcome: Curriculum Development for Language Arts, Training Modules 1, 2, 3, 4, 6, 7, 8, 9, CBE Recordkeeping for the Classroom.

Evaluation by participants of the program's work with pioneer sites and documentation appear in the evaluation report.

Additional field testing of developed products was conducted in contracted technical assistance activities and with the Georgia Department of Education. These activities are detailed in the Dissemination Component Report.

Targeted development activities for the CBE Program have resulted in the development of a substantial number of products and have proved a useful source for promising practices, as well as keeping the Program staff in touch with actual practitioner problems.

SECTION 4

DISSEMINATION

COMPONENT 3.0: Dissemination

OBJECTIVE 3.1: To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities

Narrative

Dissemination is a major component of the CBE Program's effort to achieve its mission. The first six months of the Program (July 78 - November 78) included only a small commitment (.17 FTE) to dissemination activities. During this period, dissemination activities were shared informally among the Program staff members. Most dissemination was in a reactive mode at the awareness or informational level.

Late in this first phase, a Program brochure was developed and printed and the first of the major technical assistance (implementation) contracts was negotiated and completed.

With the beginning of the 1979 fiscal year, there was an increase in the level of effort in the dissemination component (up to .93 FTE). To meet the requirements of the increased level of effort, a search was launched for another staff member at the specialist level. This search required most of the first quarter to be brought to a successful conclusion.

In March, 1979, an additional staff member was added to the Program, whose main function was, and continues to be, the planning, development and coordination of the dissemination work component.

Soon after, collected and developed products were catalogued and a general dissemination plan was developed which included a developmental sequence of dissemination activities.* In addition, product development and quality control routines were standardized.**

This second and still current phase (March 79 - present) of dissemination activity has been directed at increased dissemination activities. Materials and processes continue to be disseminated through several pathways that have been used since the Program's beginnings. These include:

- direct mailings
- the CBE Network
- NWREL Marketing Department
- site visits
- technical assistance contracts
- SEA's in Oregon, Pennsylvania and Georgia.

See Appendix 2 for further details on dissemination activities. We are also currently exploring several, alternative cost-effective dissemination media forms and pathways to supplement those already in use.

Other significant events and activities in this second phase of operations have included the following:

- Negotiations were initiated and completed with the NWREL Regional exchange for the acceptance of promising practices as abstracts and as products for inclusion in their depository.

- Several issue/occasional papers have been developed and are listed in Table 1 above (Page 8). Many of these are still undergoing development in the quality control routines. Those that are ready for dissemination have been channeled into the R_X, the CBE Network and are also made available through direct contact with Program staff.

*See Appendix 2A
**See Appendix 2B

- In addition to the dissemination of Program developed products and collected promising practices, CBE processes are disseminated through technical assistance contracts. In FY 79 several such contracts were sought, obtained and completed.*

All milestones and products for the contract period July 1, 1978 - November 30, 1979 have been met or delivered on schedule.

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*An annotated list of these activities is included in Appendix 2C

SECTION 5

EVALUATION REPORT

JUNE 1, 1978 - NOVEMBER 30, 1978

Design 6/1-11/30/78
Leo Myers

COMPETENCY BASED EDUCATION PROGRAM

Northwest Regional Educational Laboratory

EVALUATION DESIGN

For the Period June 1, 1978 - November 30, 1978

I. PURPOSE OF THE EVALUATION

The purpose of the evaluation of Competency Based Education (CBE) Program activities conducted from June 1, 1978 through November 30, 1978 is to determine the extent to which the Program achieves its process and product objectives as specified in the Scope of Work document in the April, 1978 Technical Proposal to the National Institute of Education.

II. EVALUATION DESIGN

The elements of the Scope of Work document form the framework within which data collection activities and data analyses occur. An Evaluation Matrix is presented on the following pages that lists the three CBE program components. For each component, the objectives and program activities are given, followed by the evaluation procedures to be used. The Evaluation Report for June 1, 1978 - November 30, 1978 will be in the same format as the design except that "Evaluation Findings" will be substituted for "Evaluation Methods" in the Evaluation Matrix.

EVALUATION MATRIX

Component	Objective	Program Activities	Evaluation Procedures
1.0 Promising Practices	1.1 To define, collect and synthesize selected practices that have potential for further CBE use	1.1.3 Develop a classification system, by validation levels, for selected practices	1.1.3.1 Examine draft collection and classification systems and analyze them for potential for further CBE use
2.0 Targeted Development	2.1 To assist pioneer sites in conducting targeted development activities, including planning and training services, product development and documentation and evaluation	2.1.3 Prepare development plans: -form site planning groups -produce site profiles -prepare site development and training plans	2.1.3.1 Examine development plans and processes and analyze them vis a vis Objective 2.1
		2.1.5 Document targeted development activities	2.1.5.1 Interview representative pioneer site staff; 2.1.5.2 Examine and perform content analysis of staff's log of activities 2.1.5.3 Examine progress reports with respect to proposed products
3.0 Dissemination	3.1 To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities	3.1.1 Develop comprehensive dissemination plan with Network and RD_x assistance	3.1.1.1 Examine the dissemination plan and analyze it with respect to potential for making CBE products/processes "visible" and available for use by practitioners

Report 6/1-11/30/78
Leo Myers

COMPETENCY BASED EDUCATION PROGRAM

Northwest Regional Educational Laboratory

FINAL EVALUATION REPORT

For the Period June 1, 1978 - November 30, 1978

I. PURPOSE OF THIS REPORT

The purpose of this report is to summarize the procedures employed in the evaluation of the Competency Based Education (CBE) Program, June 1, 1978 - November 30, 1978, and to present the evaluation findings. The present report is essentially a summative evaluation report that describes the extent to which the objectives and activities defined in the Scope of Work in the April, 1978 CBE Technical Proposal have been addressed. The report is formative, however, in the sense that "lessons learned" in FY 1978 program operations will be reflected in the FY 1979 evaluation design.

II. EVALUATION PROCEDURES

The evaluation procedures used to collect and analyze data for the present report were detailed in the EVALUATION DESIGN for the period June 1, 1978 - November 30, 1978. Data were collected by means of interviews and document examination and analysis. Interviews were conducted by Sharon Owen, Education and Work, Northwest Regional Educational Laboratory. Documents were examined and analyzed by Dr. Leo W. Myers, educational consultant. Neither of the evaluators is on the CBE staff.

III. EVALUATION FINDINGS

On the pages that follow, an Evaluation Matrix is presented that lists, for each of the CBE Program components, the objectives, program activities and evaluation findings. The evaluation findings are summarized in Section IV, Lessons Learned, FY 1978.

EVALUATION MATRIX

Component	Objective	Program Activities	Evaluation Findings
1.0 Promising Practices	1.1 To define, collect and synthesize selected practices that have potential for further CBE use	1.1.3 Develop a classification system, by validation levels, for selected practices	1.1.3.1 A draft collection and classification system was prepared by CBE staff in the Spring and Summer of 1978, and reviewed and revised by the CBE Network at its September 25-27, 1978 meeting. Essentially, the collection system has two components: (1) A CBE Planning Matrix which provides a framework for classifying promising practices as they relate to various instructional strategies and educational audiences, and (2) A process used to quality screen, validate and classify identified promising practices. The CBE Planning Matrix and a description of the classification process appear in Program Progress Report, Competency Based Education Program, Northwest Regional Educational Laboratory, November 30, 1978. Also appearing in the Program Progress Report are two sets of abstracts and excerpts from the draft collection of Promising Practices. One set consists of A User's Guide for Competency Based Curriculum Development for Rural Secondary Schools in Alaska; the other is entitled Tracking and Reporting School Leaving Competencies. Both documents have direct application for school districts' planning and implementing competency based education programs. Each of the Promising Practices in the collection that were examined by the evaluator have potential for

EVALUATION MATRIX

			further CBE use but there is need for an articulation of the nature of the collection and its relationship to analyses of "subgroups" of practice in terms of how these fit or do not fit into a total system.
2.0 Targeted Development	2.1 To assist pioneer sites in conducting targeted developmental activities, including planning and training services, product development and documentation and evaluation	2.1.3 Prepare development plans: -form site planning groups -produce site profiles -prepare site development and training plans	2.1.3.1 The evaluator examined the materials documenting the planning and establishment of targeted development sites. The process observed protocol in terms of inviting the superintendents of six school districts to explore CBE technical assistance and local development possibilities. Three of the six districts were fully committed to the project and administrators and faculty were assigned to form site planning groups. Products of the planning activity, i.e., lists of schools' planning groups, site profiles and site development and training plans were sent to the National Institute of Education July 27, 1978. It is apparent, on reviewing the planning and development of targeted development sites, that local school districts must first identify their own specific needs for assistance and improvement before they will commit to helping develop a concept/system like Competency Based Education. Teachers' and administrators' first concern is implementing instructional activities in an

EVALUATION MATRIX

2.0 Targeted Development (cont.)		effective manner--the fact that research and development could be involved is of secondary importance to them.
	2.1.5 Document targeted development activities	2.1.5.1 CBE staff kept a daily log of targeted development activities at each of the pioneer sites for the period June 1, 1979 - November 30, 1979. The log entries appear verbatim in Appendix A to this report. An analysis of the log entries, and interviews conducted by the evaluator with the CBE staff reveal the following: a. Knowledge and skill building for the research and development aspects of CBE's work with pioneer sites are directly related to the CBE staff's responding to the site personnel's requests for materials and strategies. As CBE responds to site requests the work broadens the CBE span and depth of knowledge, adds information to the Promising Practices collection, gives clues as to the best dissemination practices from the practitioners' perspectives and sharpens CBE's technical assistance skills. b. Targeted development activities and site contact persons change as "targets" (needs) change. Throughout the logs of development activities in the three high school sites there are ebbs and flows from topic to topic. Some can be

EVALUATION MATRIX

2.0 Targeted Development (cont.)

2.1.5.1 (cont.)

traced back to planning groups' decisions but more often the change in focus of work can be traced to high school staff members' inquiries and requests for specific help. The targeted development activities stay within the parameters of the CBE proposal but the specific nature of the work is varied and dynamic--almost *ad hoc*--as CBE staff members attempt to provide the desired assistance.

c. Given the same developmental framework (CBE), the same initial shopping list of areas of work and the same time and resource parameters, three high schools identified completely different specific areas of work.

d. The specific areas of work, though varied among the three high school sites, can be subsumed under the following four general headings (listed in the order of frequency of emphasis in the site schools):
1) Staff training
2) Student competencies recordkeeping
3) Student evaluation
4) Motivation of students

e. Although the number of times CBE staff initiated action on this project in the site schools is about the same as the number of times the site schools took the initiative,

EVALUATION MATRIX

2.0 Targeted Development (cont.)	2.1.5 Document targeted development activities (cont.)	2.1.5.1 (cont.) periods of inactivity tended to occur unless CBE took the initiative and, for example, asked for a progress report or called for a meeting at the schools' convenience.
		2.1.5.2 An evaluator conducted interviews on December 11, 1978 with three staff members involved in targeted development activities at one of the site schools June 1 - November 30, 1978. A summary of the interview responses appears in Appendix B to this report. An analysis of the summary of interview responses indicates that: a. Roles of the actors in field-based research and development activities must be clarified at the outset. b. "Readiness" to participate in developmental activities varies among departments and individual staff members. Some list reasons for participating, others list reasons for not participating. The importance of careful selection of planning group members to secure constructive support is obvious. c. Released or extended time for school staff to participate is essential for successful field-based research and development activity.

EVALUATION MATRIX

3.0 Dissemination	3.1 To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities	3.1.1 Develop comprehensive dissemination plan with Network and RD_X assistance	3.1.1.1 The evaluator examined the second draft dissemination plan that was submitted to NIE on November 30, 1978. The plan spells out five dissemination categories: a. Providing information b. Distributing abstracts, papers and summaries c. Information exchange d. Alternative approaches e. Implementation assistance The category in which most CBE activities during the period June 1, 1978 - November 30, 1978 fall is "providing information", chiefly through the CBE Program brochure. The category with the second most activity was "information exchange", mostly reactive to needs identified on a broad base and at the targeted development sites. The third most active category was "implementation assistance". The CBE program staff provided assistance to three state departments of education and to five school districts additional to the three pioneer sites. Work in the category "distributing abstracts, papers and summaries" has just begun and activities in the "alternative approaches" category is limited to a variety of informal contacts--phone calls and visitors.

EVALUATION MATRIX

3.0 Dissemination (cont.)	3.1.1.1 (cont.) One lesson learned with respect to dissemination is that apparently more visibility will be gained for CBE if development and dissemination are proactive, involve the exchange of ideas and are aimed at meeting the needs of a large and varied group of practitioners than if development and dissemination are limited to providing information, implementation assistance and alternative approaches for a few informal contacts.

IV. LESSONS LEARNED, FISCAL YEAR 1978

From the evaluators' perspectives, based on the evaluation findings detailed in Section III above, the following lessons have been learned from CBE's Fiscal Year 1978 activities with respect to each component:

1.0 Promising Practices

a. There is need for an articulation of the nature of the collection and its relationship to analyses of "subgroups" of practice in terms of how these fit or do not fit into a total system.

2.0 Targeted Development

a. Local school districts must first identify their own specific needs for assistance and improvement before they will commit to helping develop a concept/system like Competency Based Education.

b. Knowledge and skill building for the research and development aspects of CBE's work with pioneer sites are directly related to the CBE staff's responding to the site personnel's requests for materials and strategies. As CBE responds to site requests the work broadens the CBE span and depth of knowledge, adds information to the Promising Practices collection, gives clues as to the best dissemination practices from the practitioners' perspectives and sharpens CBE's technical assistance skills.

c. Targeted development activities and site contact persons change as "targets" (needs) change. The specific nature of the work is varied and dynamic--almost ad hoc--as CBE staff attempt to provide the desired assistance.

d. Given similar conditions and the same offers of technical assistance, three schools identified completely different specific areas of work.

e. Though varied among the site schools, specific areas of work can be subsumed under four headings (listed in order of frequency of emphasis in the site schools):
   (1) Staff training
   (2) Student competencies recordkeeping
   (3) Student evaluation
   (4) Motivation of students

f. Periods of inactivity tended to occur at the sites unless CBE took the initiative and, for example, asked for a progress report or called for a meeting at the schools' convenience.

g. Roles of the actors in field-based research and development activities must be clarified at the outset.

h. Careful selection of planning group members with high levels of "readiness" is essential to secure constructive support.

i. Released or extended time for school staff to participate is essential for successful field-based research and development.

3.0 Dissemination

a. Apparently more visibility will be gained for CBE if development and dissemination are proactive, involve the exchange of ideas and are aimed at meeting the needs of a large and varied group of practitioners than if development and dissemination are limited to providing information, implementation assistance and alternative approaches for a few informal contacts.

APPENDIX A

Log of Targeted Development Activities

Sam Barlow High School

Date	Task
6/07/78	Develop Barlow Need Plan; focus on 4 areas (training, motivation, recordkeeping, and evaluation) and identified 19 areas of work with Planning Group.
6/13/78	Identify specific concerns and identify problems to work on. Judy Webb, Sarah Boylston, Wink Chilton.
6/26/78	Review and rank order concerns and work areas with Planning Group.
7/05/78	Completion and agreement on detailed specific work areas which included (1) Site specific activities, (2) Persons responsible, (3) Timeline, and (4) Expected outcome. Planning Group.
7/19/78	Assistance to District Curriculum Coord. in preparing district inservice. Wink Chilton.
8/25/78	Staff planning -- initial planning session to work with Barlow Staff. Bob Taylor, Joanne Anderson.
9/11/78	Introduce CBE staff to Barlow staff and work with Planning Group on individual instruction surveys. Whole Barlow staff.
9/14/78	Date check and request for developing adaptive P.E. program. Anderson.
9/14/78	Letter to Barlow -- included "shopping list" survey. J. Anderson.
9/19/78	Discussion of the concerns for development of assessment items for English. Joanne Anderson, Joy Guidry.
9/20/78	Planning session with "levels" teachers on evaluation & recordkeeping -- review, analyze, and recommend alternative models. J. Anderson.
9/22/78	To review survey with Planning Group and to discuss approach to interdisciplinary need. Planning Group.
10/13/78	In-service to 22 Barlow staff on 4 identified topics based on survey.
10/17/78	Met with Sarah Boylston (French Department) & delivered sample student assistant contract. Also met with Planning Group to review in-service evaluation.
10/18/78	Telephone request to D. DuBose for Home Ec. materials.

APPENDIX A

Log of Targeted Development Activities

Clackamas High School

Date	Task
6/15/78	Initial building level contact to discuss CBE program and propose work.
6/29/78	Planning Session to identify work areas.
7/06/78	Review and rank order work areas: (1) Recordkeeping System; (2) Review district competencies; (3) Competency make up center; (4) Motivating/ teaching strategies explored.
8/15/78	Planning group workshop on above 4.
8/18/78	Personal Finance materials delivered to CBE by Al Eisele (Personal Finance Department Chairman).
8/24/78	Review Personal Finance Materials with Al.
8/29/78	Review with Henry Kilmer training plans proposed.
9/01/78	In-service training with staff -- writing PI's and assessment items.
9/06/78	Review evaluation of 9/1 activities and future direction. Planned external analysis of planned course statements for Clackamas High.
10/18/78	Telephone request from Noreen Tompson, Home Ec., help for indiv. instr.

APPENDIX A

Log of Targeted Development Activities

Jefferson High School

Date	Task
6/14/78	CBE Orientation with planning group.
6/27/78	Define CBE -- Jefferson High work areas and agreed upon 1. Develop Lanaguage Arts planned course statements. 2. Review P.C.S. Eng. 3. Staff training diagnosis and assessment. 4. Review and revise P.I's. 5. Develop recordkeeping system. 6. Train Math Department in use of #5. 7. Establish Resource Center. 8. Staff training Soc. Stud. 9. Review and Eval. Work.
7/01/78	Loaned material to Linda Christensen to begin work on developing P.C.S.
7/17/78	Review Linda Christensen's planned course statement.
7/26/78	Review and revise performance indicators for Language Arts competencies.
7/27/78	Describe Belmont System to Linda Christensen.
8/14/78	Linda Christensen picked up dev. and assembled assessment items.
8/23/78	Review assessment items and recordkeeping with Linda Christensen -- readability concern.
8/25/78	Set goals for staff development with Math/Science unit.
8/30/78	Last check on inservice agenda.
8/31/78	Training session for Math unit.
9/14/78	Progress check with Linda Christensen.
9/15/78	Review survey with Judy Doyle.
9/18/78	Meet with unit leaders -- distribute individualized instruction surveys; survey unit staff on training needs. Shopping list.
9/19/78	Review survey with Meskimen.
10/06/78	Delivered sample student recordkeeping form to Linda Christensen.
10/11/78	Check on survey progress by phone.
10/17/78	Request by phone for help in purchasing math materials.
11/08/78	Firm up plans on staff training.

Summary, Interviews with Three Pioneer Site Staff, December 11, 1978

CBE Role - It was clear to one of the respondents from the beginning that the school's involvement with CBE staff would be in terms of mutual activities; the other two thought the CBE staff was going to do it "for" them. These misapprehensions have been cleared up and in the case of the English Department, looking back, it was considered to have been much better that they had to work through it themselves.

English Department - Received help at each stage: course goals, performance indicators, brainstorming activities, sample test items.

Math Department - Staff Inservice: one respondent felt it went well and was well received by teachers who had not previously been part of the planning process; the other felt that teachers would have rather been doing their own individual planning; inadequate followup, e.g., record cards are being printed by CBE staff and they haven't gotten them to the teachers.

General Activities: The CBE staff has not been able to do much for the math teachers due to (a) the math department has its own program they are busy carrying out; (b) math teachers don't have the time to seek out the CBE staff or to meet and write proposals for how they want help; (c) need for CBE staff to come in and spend some time looking at what the math department is doing and make suggestions for change or improvement; (d) lack of developed "packages" that are in use elsewhere.

Communication - It was really helpful to English Department to have had summer time to work with CBE staff (2); During school it is difficult to maintain good contact (3). Suggest more or closer regular contacts initiated by CBE staff. Contacts which occur are task-oriented, e.g., just before meetings (1). No communication foulups have occurred among CBE staff and school staff (3).

Prognosis for Spread of CBE in Jefferson

Not enough administrative support (2)

So long as the mandate holds up from the state and district (3)

Some teachers and Reading in the Content Area people are getting excited about the ideas.

Besides English and math, we don't know where the other competency classes will go - probably will begin to have special competency tests. Evaluator: "What about Competency-Based Instruction, e.g., flexible timing, individualized instruction?" Respondents: "No."

Special Topics - Outcomes - attendance has improved in English classes which are doing competency testing because makeup tests are done at lunch hours, after school, etc. Other teachers have also noticed and commented on this.

Attitude Summary - The evaluator's summary of each respondent's overall attitude at this time: Enthusiastic (1); Pleased, Satisfied (1); Hopeful (1).

Conclusions: The evaluator's impression is that generally the staff is still hung up on testing and curriculum improvement (the latter not necessarily in terms of CBE). That is, CBE does not appear to be viewed as a "system" but as (1) a mandate and (2) an opportunity to get outside experts to provide information and assistance to do "our own thing".

SECTION 6

EVALUATION REPORT

DECEMBER 1, 1978 - NOVEMBER 30, 1979

Design 12/1/78-11/30/79
Leo Myers

COMPETENCY BASED EDUCATION PROGRAM

Northwest Regional Educational Laboratory

EVALUATION DESIGN

For the Period December 1, 1978 - November 30, 1979

INTRODUCTION

The extent to which the Program achieves its process and product objectives as specified in the Scope of Work document is determined through internal and external evaluation processes. One Program staff member has primary responsibility for coordinating the internal evaluation, with all staff members participating in data collection activities and analysis of results. A third-party evaluator was employed to conduct interviews with pioneer site personnel, develop and circulate questionnaires to users of CBE technical assistance and analyze CBE program documents.

I. PURPOSE OF THE EVALUATION

The evaluation process produces information in four modes.

formative feedback -- The evaluation process reports to Program staff at appropriate intervals. These data based reports are used by staff to alter Program direction or activities in ways that will lead to more efficient or effective action toward the attainment of Program objectives.

summative reports -- These reports are prepared for external audiences and describe the extent to which the Program has achieved its objectives as stated in the Scope of Work statement.

program audits -- This portion of the evaluation process monitors Program performance with respect to time lines and planned procedures. These audits occur at periodic intervals.

knowledge guilding in the R&D process -- Data is collected that traces the process dimensions of the Program's efforts toward the achievement of its objectives.

II. Evaluation Design

The elements of the Scope of Work document form the framework within which data collection activities occur. For the period December 1, 1978 - November 30, 1979, only three of the four Program work components are in operation and are, therefore, the three components for which evaluation data must be collected.

Since Program activities during this period are primarily developmental, the data collected is in descriptive, narrative forms. An important aspect of the evaluation is the effort to document the process through which Program objectives are attained. In particular, the evaluation focuses on the implementation process at the Targeted Development sites.

The following Evaluation Matrix shows the evaluation process with respect to each of the relevant work components. At the conclusion of each component there appears an objective "link to lessons learned, FY 1978". In the final evaluation report the evaluator will seek and describe any evidence that processes or products have been changed as a result of consideration of lessons learned by CBE Program Staff in FY 1978. The Evaluation Matrix in the Final Evaluation Report for FY 1979 will be in the same format as the Matrix in this design, except that "Evaluation Findings" will be substituted for "Data Collection and Analysis" in the last column.

EVALUATION MATRIX

EVALUATION DESIGN

OBJECTIVE		MEASURE	DATA COLLECTION & ANALYSIS
1.	Promising practices		
1.1	To define, collect and synthesize selected practices that have potential for further CBE use		
1.1.1	Define, identify and collect promising practices	Definition of promising practices; collection of promising practices	Examine definition and collection; conduct descriptive analysis
1.1.2	Establish screening criteria	Written criteria	Examine criteria; conduct descriptive analysis
1.1.3	Develop classification system	Written classification document	Examine classification system and process of developing system; conduct descriptive analysis
1.1.4	Apply screening criteria to pp's	Retention/rejection list	Examine evidence that criteria have been applied
1.1.5	Classify pp's	List of abstracts with appropriate category assigned to each abstract	Examine list of abstracts and appropriateness of categorization; conduct descriptive analysis
1.1.6	Edit, format, and prepare abstracts	Collection of abstracts	Examine abstracts; conduct descriptive/quantitative analysis
1.1.7	Link to lessons learned, FY 1978	Evidence of change in processes or products	Relate FY 1979 experience to FY 1978 lessons.

EVALUATION MATRIX

2.	Targeted development		
2.1	To assist pioneer sites in conducting targeted development activities, including planning and training services, product development, and documentation and evaluation services		
2.1.1	Conduct targeted development in priority areas	List of targeted development areas with priorities identified / list of development activities	Examine targeted development plans and processes and analyze for priority work areas; analyze the CBE log of targeted development activities
2.1.2	Document targeted development activities	Hall questionnaire and analysis / feedback from pioneer sites	Interview CBE Project personnel of each site and analyze responses; circulate the Hall questionnaire and analyze responses
2.1.3	Complete prototype products/processes	Teacher training modules	Examine appropriate documents and conduct descriptive analysis
2.1.4	Link to lessons learned, FY 1978	Evidence of change in processes or products	Relate FY 1979 experience to FY 1978 lessons

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3.	Dissemination		
3.1	To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities		
3.1.1	Develop comprehensive dissemination plan	Written dissemination plans (general & action)	Examine dissemination plan; conduct descriptive analysis
3.1.2	Prepare flier	Flier	Examine flier

EVALUATION MATRIX

3.1.3	Develop occasional papers and executive summaries	Draft or finished copies of occasional papers and/or executive summaries	Examine appropriate documents
3.1.4	Active dissemination plan in place	Written agreements from RD_x and Network / list of materials disseminated along with approximate numbers	Examine dissemination agreements; analyze the CBE monthly contact log; conduct content analysis of how CBE responds
3.1.5	Provide technical assistance in competency based education implementation on request	Workshops, conferences and other inservices on staff, training and curriculum development	Survey, by means of questionnaire, the users of CBE technical assistance; analyze questionnaire responses
3.1.6	Link to lessons learned, FY 1978	Evidence of change in processes or products	Relate FY 1979 experience to FY 1978 lessons

COMPETENCY BASED EDUCATION PROGRAM

Northwest Regional Educational Laboratory

FINAL EVALUATION REPORT

For The Period December 1, 1978 - November 30, 1979

I. PURPOSE OF THIS REPORT

The purpose of this report is to summarize the procedures employed in the evaluation of the Competency Based Education (CBE) Program, December 1, 1978, --November 30, 1979, and to present the evaluation findings. The present report is a summative report for FY 1979 but it includes a followup on lessons learned in FY 1978 that were described in the FY 1978 Final Evaluation Report. This report describes the extent to which the objectives and activities defined in the Scope of Work in the April, 1978 CBE Technical Proposal have been addressed.

II. EVALUATION PROCEDURES

The evaluation procedures used to collect and analyze data for the present report were detailed in the EVALUATION DESIGN for the period December 1, 1978 - November 30, 1979. Data were collected by means of interviews, questionnaires and document examination and analysis. Interviews and questionnaire surveys, including development of some of the instruments used, were conducted by Dr. Leo W. Myers, an educational consultant employed by CBE for third-party evaluation services. The consultant administered the questionnaire, based on Gene Hall's levels of Survey on the Levels of Use of Competency Based Education, to five local district people representing two of the three pioneer sites (The third site furnished the three interviewees whose responses are summarized in the FY 1978 Final Evaluation Report). The questionnaire appears in Appendix A to this report. Hall suggests that the use of any innovation in schools proceeds through six stages--from initial non-use/non-concern (stage 0) through information gathering and planning (stage II) to routine use (stage NA) and finally revision to better meet clients' needs (stage VI). The survey questionnaire isolated eight key elements of a CBE program and asked participants to rate the use of the element within their school or program. The survey repeated over time, provides schools and program staff with information about progress toward CBE.

A structured interview guide (please see Appendix B) was used by the consultant to conduct interviews in October, 1979, with six local district staff representing all three pioneer sites. A questionnaire (Appendix C) was sent by the consultants to six users, other than pioneer sites, of CBE's technical assistance services during FY 1979; four questionnaires were returned and the responses are summarized in this report.

III EVALUATION FINDINGS

On the following pages, an Evaluation Matrix is presented that lists, for each of the CBE program components, the objectives, program activities and evaluation findings. The evaluation findings are summarized in Section IV.

EVALUATION MATRIX

OBJECTIVE	MEASURE	EVALUATION FINDINGS
1. Promising practices		
1.1 To define, collect and synthesize selected practices that have potential for further CBE use		
1.1.1 Define, identify and collect promising practices	Definition of promising practices; collection of promising practices	An operational definition of "promising practices" is still emerging. Collection now is on the basis of a definition derived from the criteria for usefulness to practitioners: "A promising practice is currently or has been recently in use by a school district; there is evidence that it works; it fits into the conceptual framework of CBE and it is transportable". There is a collection of 34 promising practices, covering a variety of subjects that have been identified and collected by CBE staff
1.1.2 Establish screening criteria	Written criteria	Criteria appear on page 44 of the CBE Program Progress Report, November 30, 1978. Those criteria are still applicable
1.1.3 Develop classification system	Written classification document	The classification document has been refined during FY 1979 to focus more sharply on subgroups of practice and practitioners

1.1.4 Apply screening criteria to promising practices	Retention/rejection list	There is documented evidence that screening criteria have been applied to candidate promising practices; the evaluator examined the retention/rejection list. Most frequent rejections were on the basis of lack of transportability of practices
1.1.5 Classify promising practices	List of abstracts with appropriate category assigned to each abstract	There is a list of 34 abstracts. Each has been classified in the indicator/user category that is apparently most appropriate. The evaluator recommends that where two or more categories seem equally appropriate abstracts be cross-referenced to each category
1.1.6 Edit, format, and prepare abstracts	Collection of abstracts	Screened, classified abstracts are being placed in RDX and sent to the CBE network
1.1.7 Link to lessons learned, FY 1978	Evidence of change in processes and products	Classification of promising practices focused more sharply on subgroups of practice in FY 1979 than in FY 1978. There is still need, however, to relate the nature of the collection to the characteristics of specific subgroups of practice. The evaluator

1.1.7 (cont.)			found no evidence that an analysis of subgroups of practice in terms of how these fit or do not fit into most promising practices seem to be of use to practitioners at all levels, from state departments to school boards to principals and teachers
2.	Targeted development		
2.1	To assist pioneer sites in conducting targeted development activities, including planning and training services, product development, and documentation and evaluation services		
2.1.1	Conduct targeted development in priority areas	List of targeted development areas with priorities identified; list of development activities	The evaluator examined targeted development plans and processes. Four major work areas prevail: (1) Staff training (2) Student competencies recordkeeping (3) Student evaluation (4) Motivation of students CBE has maintained a comprehensive, detailed account of targeted development activities in the form of a daily log. The log is presented verbatim in Appendix D to this report An analysis of the logs indicates that FY 1979 activity was concerned

EVALUATION MATRIX

2.1.1 (cont.)		first with finishing activities begun and planned in FY 1978, second with responding to specific new requests by pioneer site personnel and third with planning new work at the sites for FY 1980.
2.1.2 Document targeted development activities	Hall questionnaire and analysis feedback from pioneer sites	A recap of Hall questionnaire responses made by five representatives from pioneer sites appears on the next page. An analysis of the responses indicates that: (1) Eleven responses indicate no current use of any of the critical pieces listed in the instrument (Rows O., I. and II.); 34 responses indicate some level of use of one or more of the critical pieces (Rows III. through VI). (2) More responses (13) appear on Row IV.B."in use; some changes made since initial adoption" than on any other row (Highest number on any other row is seven). (3) The critical piece mentioned most often as being in use is "instruction that results in student mastery of the competencies".

EVALUATION MATRIX

2.1.2 (cont.)

Hall questionnaire and analysis feedback from pioneer sites

(4) The critical piece mentioned most often as not being in use is "community involvement in selecting, teaching and assessing the competencies".

(5) Critical pieces that respondents "see need for" and are seeking information about are" assessment of competencies in real or simulated life settings", "community involvement...", "management system..." and "use of data on competency achievement to plan improvements in curriculum, instruction and management."

The evaluator conducted personal, on-site interviews at all three pioneer sites. A total of six persons were interviewed, using the structured interview guide that appears in Appendix B. Responses, in their entirety, are as follows:

1. Expectations with respect to CBE technical assistance
   a. New methods and new ideas in levels work, expectation fulfilled
   b. Technical and motivational help

EVALUATION MATRIX

2.1.2 (cont.)	Hall questionnaire and analysis feedback from pioneer sites	c. Ways to evaluate levels program *vis a vis* regular program d. Ways to keep records e. That CBE could use concepts, materials and strategies the school had already developed f. Wanted to see teachers more than record clerks g. More materials and teaching styles in individualized science instruction h. Linkages through CBE network would give the school more helps and promising practices i. CBE could give us exemplary stuff in a minimum amount of time j. Creative input for a geometry course I had developed and for basic math k. That CBE would be informative and stimulative for persons not familiar with levels and individualization l. That CBE would benefit from our schools experience in an empirical sort of way m. Help in constructing goals, objectives, performance indicators

EVALUATION MATRIX

2.1.2 (cont.)	Hall questionnaire and analysis feedback from pioneer sites	n. Lists of actual competencies written by CBE--they know how to write them, they should do it for us--CBE should give us the minimum competencies the District needs and let teachers add if they want to o. That CBE would assess our competencies program and make suggestions on how to improve it 2. Strengths of CBE's technical assistance a. Leslie and Pat available and responsive to requests--they're good at providing materials and strategies b. Help in making teachers function less as record keepers and more as managers of learning c. Released time provided two staff members to work with CBE d. Good suggestions on putting existing material together and incorporating new material e. Good workshops for teachers new to CBE concepts

EVALUATION MATRIX

2.1.2 (cont.)	Hall questionnaire and analysis feedback from pioneer sites	f.The analysis CBE did showing us where our competencies appear, and do not appear, in our curriculum g.A wealth of ideas, lot of options to choose from h.CBE helped teachers choose options--they didn't force them 3.Weaknesses of CBE's technical assistance a.Disappointed in finding no good recordkeeping procedures for levels program; school is still experimenting on their own b.Limited CBE resources for site staff training c.No released time for teachers to participate with CBE; teachers have to be directly involved in the work d.Couldn't come up with more logical grading and recording system consistent throughout the school (this is partly an internal political program) e.CBE laid no groundwork before school-wide faculty meeting--teachers got it cold--no pre-assessment of teachers' needs and too much too fast

EVALUATION MATRIX

2.1.2 (cont.)	Hall questionnaire and analysis feedback from pioneer sites	f. Miscommunications at first--administrator and some teachers thought CBE would have everything already written g. Scope of our project is too great for the CBE staff available h. Nothing will happen as a result of technical assistance from the outside to the teachers; it has to happen inside with the teachers 4. Critical incidents (events that strongly reinforced a perceived strength or weakness) a. The day Leslie and Pat spent at our school with 12-13 teachers on individual teacher projects doing one-on-one consulting b. Being able to call Pat in and work on my own problems c. Last meeting, end of summer, when Leslie, Ron and our teachers worked through a makeup center idea and then decided to address larger issues 5. a. What have you, and your school, done with the results of any assistance provided by CBE?

EVALUATION MATRIX

2.1.2 (cont.)		Hall questionnaire and analysis feedback from pioneer sites	1)We plugged new units and resource material into existing programs; motivation and program planning with staff is more comfortable for staff because of our interaction with CBE staff 2)Language arts staff is applying what they learned--directly--in planning and instruction 3)Used results to help modify math levels curriculum 4)Most of us have tried to forget it (writing competencies) 5)Flaws in writing competencies discovered at the site. School helped correct writing competencies district-wide 5.b.What do you plan to do with the results in the future? 1)We'll probably be pushed into a continuous progress approach so we'll need to expand CBE to help that movement 2)We would like to contract CBE to do our recordkeeping and training of staff to keep

EVALUATION MATRIX

2.1.2 (cont.)	Hall questionnaire and analysis feedback from pioneer sites	records--CBE might subcontract with a consultant who is a record-keeping specialist 3)There's a hell of a distance between CBE concepts and actual practice; we need a cadre to move into schools and show it can work 4)We're considering revising our K-12 curriculum to articulate throughout; we will perhaps revise our planned course statements in the process, using what we've learned from CBE
2.1.3 Complete prototype products/processes	Teacher training modules	Nine teacher training modules have been developed and field tested in at least 2 Oregon sites and 2 Georgia sites. In each field test, participants evaluated their own cognitive growth as a result of the training session and made suggestions for revisions of the training modules. Ratings of cognitive growth were uniformly high on the evaluations of the modules; suggestions for changes have been incorporated in the modules. While the staff is pleased with the modules and their reception in the field, further revision and testing is needed. No funds are available for this purpose.

EVALUATION MATRIX

2.1.4 Link to lessons learned, FY 1978	Evidence of change in processes or products	For each of the lessons learned FY 1978 (Final Evaluation Report, FY 1978) written in brief form below, the evaluator's perception of the status by November 30, 1979 is given as follows: a. Schools must identify their own specific needs for improvement Status, November 30, 1979: CBE staff have adopted a strategy of helping schools identify and carefully define specific needs before help is given b. Knowledge and skill building for the research and development aspects of CBE's work Status, November 30, 1979: CBE staff have learned that each response to a request from pioneer sites or other sources, each inquiry made by CBE staff, each material developed for training, etc., contributed to the knowledge-building function. The components of the CBE program complement each other for knowledge-building, i.e., things learned at pioneer sites feed the dissemination component, promising

EVALUATION MATRIX

2.1.4 (cont.)

Evidence of change in processes or products

practices are identified in searches for information to respond to pioneer site requests, etc.

c. Targeted development activities and site contact persons change as "targets" (needs) change
   Status, November 30, 1979: Logs of activities and interview responses indicate that CBE staff are aware of and responsive to the need to alter direction as the needs at sites emerge and change

d. Schools select different specific areas of work
   Status, November 30, 1979: Flexibility is still apparent among schools with respect to needs identification and development activities

e. Four general areas of work prevail in the pioneer schools
   Status, November 30, 1979: Staff training, record-keeping, student evaluation and motivation of students remain areas of emphasis but the Hall questionnaire results indicate that

EVALUATION MATRIX

2.1.4 (cont.)	Evidence of change in processes or products	schools want to explore more in the areas of assessment, community involvement, management systems and use of competency achievement data f. Periods of inactivity tend to occur at the pioneer sites unless CBE takes the initiative Status, November 30, 1979: CBE/pioneer site planning now includes specifying time lines and persons responsible for various aspects of the work g. Roles of the actors must be clarified at the outset Status, November 30, 1979: Interview responses indicate that this lesson needs to be taken into consideration more. Of six respondents, three complained of expectations that differed from reality h. Careful selection of planning group members is essential Status, November 30, 1979: "Readiness" levels of individual planning group members to participate varied immensely in FY 79. The evaluator suggests that more effort be made

EVALUATION MATRIX

2.1.4 (cont.)	Evidence of change in processes or products	by CBE staff with each pioneer site liaison to take time and care to get planning group members who have something constructive to contribute. However, the planning group members are appointed by the principal--making the program role in selection very difficult i. Released or extended time for school staff to participate must be provided Status, November 30, 1979: Although the importance of this lesson is recognized, this remains a local school district option since CBE resources are not sufficient to underwrite grants to local staff members

EVALUATION MATRIX

3. Dissemination

3.1 To make visible and available for use by practitioners CBE products/processes resulting from the collection of promising practices and targeted development activities

3.1.1	Develop comprehensive dissemination plan	Written dissemination plans (general & action)	The dissemination plan appears to have the desired potential for gaining visibility and availability for CBE products/processes. The evaluator's analysis given in detail in the Evaluation Matrix in the FY 1978 Final Evaluation Report.
3.1.2	Prepare Flier	Flier	The draft flier examined by the evaluator appears to be an attractive, thought-provoking vehicle--there is the usual tendency, however, to try to get too much information in too small a space.
3.1.3	Develop occasional papers and executive summaries	Draft or finished copies of occasional papers and/or executive summaries	Several coordinate papers are available that have been developed by or for CBE staff. There appears to be some indecision, though, about the desirable characteristics and content of documents in this category.

EVALUATION MATRIX

3.1.4 Active dissemination in place	Written agreements from RD_x and Network / list of materials disseminated along with approximate numbers	CBE's contact log lists approximately 200 contacts for FY 1979. These are charted by the month. About 80 percent of the contacts are personal or by phone. Most requests are for materials or technical assistance that can supplement existing school programs. Responses range from just dropping something in the mail to developing whole workshops. Short consultations followed by supplying appropriate materials is the usual mode of response. Written agreements from RD_x and the CBE network are in effect
3.1.5 Provide technical assistance in competency based education implementation on request	Workshops, conferences and other inservices on staff training and curriculum development	Six users of CBE technical assistance services were sent questionnaires (Appendix C) October 13, 1979, four responded. Their responses are as follows: 1. What were the major strengths of the technical assistance? a. Introduction to theory of management by objectives; "soft sell" as requested b. Warm, personal interaction of CBE staff with our staff

EVALUATION MATRIX

3.1.5 (cont.)	Workshops, conferences and other inservices on staff training and curriculum development	c.Expertise and excellent organization of presentations d.Expedience in handling paper work e.Continuity of program development f.Practicality of CBE program suggestions, usable data g.Offered us options of various models and designs h.CBE personnel are very comfortable to work with; they were committed to helping us out 2.What were the major weaknesses of the technical assistance? a.None (two responses) b.Published materials arrived too late--after inservice--enthusiasm for followup weak c.Too much to be done in too short a time--not CBE's fault 3.Did you use the results of the technical assistance? 4 Yes; 0 No If so, how? a.In prioritizing management goals for the year b.To continue to improve our instructional program

EVALUATION MATRIX

3.1.5 (cont.)	Workshops, conferences and other inservices on staff training and curriculum development	c. To help us with our self-study for meeting Teachers Standards and Practices Commission certification requirements for teacher education programs 4. For your purposes, was the technical assistance (check one) _3_ Excellent? _1_ Very Good? ___Good? ___Fair? ___Poor? 5. General Comments: a. I'm very happy with the work provided by CBE--we will continue to contract with them for this service (staff development and program review and revision) b. Wish we could have afforded more consultation but the training helped educate our staff on the competency based approach to teaching; CBE staff actually gave us a generous portion of their time and energy for what we actually contracted and paid for.
3.1.6 Link to lessons learned, FY 1978	Evidence of change in processes or products	The FY 1978 lesson in this component was that pro-active idea exchange aimed at meeting the needs of a large and varied group of practitioners will constitute

3.1.6 (cont.)	Evidence of change in processes or products	the most effective dissemination for CBE. The dissemination efforts in FY 1979 have heeded this lesson. One subcomponent, occasional papers and executive summaries, needs to be developed more, however, since it would contribute proactive idea exchange for varied audiences

IV. SUMMARY OF FINDINGS

Promising Practices

The operational definition of promising practices is still emerging. The current definition is derived from the selection criteria: "A promising practice is currently or has been recently in use by a school district, there is evidence that it works, it fits into the conceptual framework of CBE and it is transportable".

There may be a need to relate the nature of the collection of promising practices to the characteristics of specific subgroups of practice, depending upon the nature of the practices identified.

Targeted Development

The CBE pioneer sites are truly innovators of CBE programs, as indicated by responses on the Hall questionnaire on Levels of Use of Competency Based Education. Analysis of site representatives' responses indicate some level of use of one or more of the "critical pieces" of CBE while only 11 responses indicate no current use of any of the pieces.

FY 1979 targeted development activity was generally concerned first with finishing activities begun or planned in FY 1978, second with responding to specific new requests by pioneer site personnel and third with planning new work at the sites for FY 1980.

Personal interviews conducted by the evaluator with pioneer site personnel revealed that teachers and administrators held common expectations for technical and motivational help from CBE staff, but individuals differed in their expectations as to the help that would be delivered. Some thought there would be a mutual, interactive approach. Others expected CBE would bring the help all written up and packaged and ready to use. The importance of clarifying roles of the actors in any field-based, research and development enterprise is reaffirmed in the interview responses.

An equal number (8) of strengths and weaknesses of CBE's technical assistance was cited by the interviewees. The strengths mentioned most often were the responsiveness of CBE staff to requests for help and the expertise with which the responses were made. Weaknesses centered around failure to find useful recordkeeping systems and uncertainty as to how CBE/site interaction would and should take place.

All but one of the interview respondents cited specific uses being made of the results of CBE technical assistance.

Nine lessons learned in FY 1978 with respect to targeted development are listed in Section III of this report. There are evidences, cited in the Evaluation Matrix in Section III, that five of the nine lessons learned have been addressed and positive changes have been made in program direction and activities. Four have not been addressed and the evaluator makes specific suggestions in Section III in that regard.

Dissemination

Questionnaires returned to the evaluator from users of CBE technical assistance, other than at the pioneer cites, note the assistance excellent (4 responses) or very good (1). All five respondents reported specific uses being made of the results of the assistance. CBE apparently still needs to work toward proactive idea exchange aimed at a variety of practitioners as the focus of its dissemination efforts.

SURVEY ON THE LEVELS OF THE USE OF COMPETENCY BASED EDUCATION

The Competency Based Education Program assumes that a fully implemented and fully effective competency based education program has some critical pieces that must be in place. Because your school is in the process of adopting some parts of competency based education, you will probably have some of the critical pieces in place and some not. We need some data on which pieces you are using and which you are not, so we will ask you to rate your impression of those on the next page. The critical pieces that we are interested in are:

1. a set of student competencies that clearly relate to the student's present and eventual functioning out of the school setting.
2. assessment of student mastery of those competencies in real life or simulations of real life settings.
3. community involvement in selecting the competencies, teaching the competencies both in and out of the school setting and in assessing student mastery of the competencies.
4. a written curriculum that specifies where instruction will happen for the competencies and level of performance that is expected.
5. instructional activities that result in student mastery of the competencies.
6. a management system that ensures that the competencies are taught, assessed and mastered, and that teachers have adequate resources to carry out the instructional tasks.
7. reporting of student mastery of the competencies to the student, parent and community.
8. use of data on competency achievement to plan improvements in curriculum, instruction, management and support services.

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

SCHOOL________________

PROGRAM_______________

CRITICAL ELEMENTS→ LEVELS OF USE↓	competencies clearly related to functioning out of school.	assessment of competencies in real or simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction, and management.
O. not using; not currently planning to use.								
I. see need for; seeking information about								
II. know about this; have definite plans to implement during this year.								
III. started using this; are learning to use this.								
IVA. used routinely; use is relatively satisfactory.								
IVB. in use; some changes made since initial adoption.								
V. in use; have planned with others to extend use beyond present implementation.								
VI. in use; currently exploring possible major changes to improve results with students.								

RECAP: Totals for Five Respondents

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

SCHOOL________________

PROGRAM________________

CRITICAL ELEMENTS→ LEVELS OF USE↓	competencies clearly related to functioning out of school.	assessment of competencies in real or simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction and management.
0. not using; not currently planning to use.			2	1				1
I. see need for; seeking information about		2	1			1		2
II. know about this; have definite plans to implement during this year.	1							
III. started using this; are learning to use this.	1		1				1	1
IVA. used routinely; use is relatively satisfactory.	1	1		1	1	1	1	1
IVB. in use; some changes made since initial adoption.	3	1	1	2	2	2	2	
V. in use; have planned with others to extend use beyond present implementation.				2	2		1	
VI. in use; currently exploring possible major changes to improve results with students.		1			2	1		1

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

SCHOOL Barlow

PROGRAM [illegible]

levels

Joanne Anderson

LEVELS OF USE ↓ / CRITICAL ELEMENTS →	competencies clearly related to functioning out-of-school. skill being developed	assessment of competencies in real or simulated real life settings. skill being developed	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction, and management.
0. not using; not currently planning to use.			should be ✓					
I. see need for; seeking information about								✓
II. know about this; have definite plans to implement during this year.							✓	
III. started using this; are learning to use this.								
IVA. used routinely; use is relatively satisfactory.				✓				
IVB. in use; some changes made since initial adoption.	✓				✓	✓	✓	
V. in use; have planned with others to extend use beyond present implementation.								
VI. in use; currently exploring possible major changes to improve results with students.		✓						

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

Bob Taylor
SCHOOL Sam Barlow
PROGRAM Bus. Ed. - Levels Program
Science - Experimental →
Home Economics

CRITICAL ELEMENTS→

LEVELS OF USE↓	competencies clearly related to functioning out of school.	assessment of competencies in real or simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction and management.
O. not using; not currently planning to use.								
I. see need for; seeking information about						X		X
II. know about this; have definite plans to implement during this year.								
III. started using this; are learning to use this.			X				X	X
IVA. used routinely; use is relatively satisfactory.	X		~~X~~	~~X~~				
IVB. in use; some changes made since initial adoption.		X						
V. in use; have planned with others to extend use beyond present implementation.				X	X			
VI. in use; currently exploring possible major changes to improve results with students.								

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

SCHOOL Sam Barlow

PROGRAM Math - Science
-Home Ec
"Levels" programs

CRITICAL ELEMENTS→ LEVELS OF USE↓	competencies clearly related to functioning out of school.	assessment of competencies in real or simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction, and management.
0. not using; not currently planning to use.								
I. see need for; seeking information about		✓	✓					
II. know about this; have definite plans to implement during this year.								
III. started using this; are learning to use this.								
IVA. used routinely; use is relatively satisfactory.								✓
IVB. in use; some changes made since initial adoption.	✓							
V. in use; have planned with others to extend use beyond present implementation.				✓	✓		✓	
VI. in use; currently exploring possible major changes to improve results with students.						✓		

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

Mike Tannenbaum

SCHOOL North Clackamas District

PROGRAM Overview - North Clackamas District

Mike Tannenbaum
Over-view of
North
Clackamas
H.S.
Curriculum
- Varies
greatly
[illegible]

LEVELS OF USE↓ / CRITICAL ELEMENTS→	competencies clearly related to functioning out of school.	assessment of competencies in real or simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written curriculum specifying where competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction, and management.
0. not using; not currently planning to use.								
I. see need for; seeking information about								
II. know about this; have definite plans to implement during this year.								
III. started using this; are learning to use this.	X							
IVA. used routinely; use is relatively satisfactory.		X						
IVB. in use; some changes made since initial adoption.			X	X		X	X	
V. in use; have planned with others to extend use beyond present implementation.								
VI. in use; currently exploring possible major changes to improve results with students.					X			X

SURVEY ON THE LEVELS OF USE OF COMPETENCY BASED EDUCATION

In order to assess the impact of the CBE Program's work with your school, we need to have your impression or opinion of the degree to which each critical piece of competency based education has been implemented in your school and/or department or courses. Thinking of the classes that you teach, manage or provide support services for, read through the description of the various levels of use and mark on the grid opposite the statement that best represents your use of the critical piece. Thanks for your help.

clackamas high school

SCHOOL C.H.S.

PROGRAM Soc St. (Geog.)

LEVELS OF USE ↓ / CRITICAL ELEMENTS ↓	Some competencies clearly related to functioning out of school.	? assessment of competencies in real or Job instance? simulated real life settings.	community involvement in selecting, teaching and assessing the competencies.	written ~~curriculum~~ course plan specifying ~~where~~ when competencies are to be taught and assessed.	instruction that results in student mastery of the competencies.	management system that ensures that competencies are taught, assessed and mastered.	reporting of student mastery of competencies to student, parent and community.	use of data on competency achievement to plan improvements in curriculum, instruction, and management.
O. not using; not currently planning to use.			✓					✓
I. see need for; seeking information about		✓						
II. know about this; have definite plans to implement during this year.	✓							
III. started using this; are learning to use this.								
IVA. used routinely; use is relatively satisfactory.					✓	✓	✓	
IVB. in use; some changes made since initial adoption.	✓	✗		✓	✓			
V. in use; have planned with others to extend use beyond present implementation.								
VI. in use; currently exploring possible major changes to improve results with students.					✓			

APPENDIX B

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed__________Respondent____________________Position__________

District______________________________

School______________________________

1. Expectations (with respect to technical assistance from CBE, NWREL):

   1.1 For self -

   1.2 For school -

   1.3 For CBE -

2. Strengths (of CBE's technical assistance)

3. Weaknesses (of CBE's technical assistance)

4. Critical Incidents (events that strongly reinforced a perceived strength or weakness)

5. What have you, and your school, done with the results of any assistance provided by CBE?

   What do you plan to do with the results in the future?

6. General Comments:

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed 10/2/79 Respondent Joanne Anderson Position Bus Ed Dept. Head

District Gresham

School Sam Barlow

1. Expectations (with respect to technical assistance from CBE, NWREL):

1.1 For self - ~~Nothing~~ For self, looking for methods & new ideas in levels work — expectation fulfilled

1.2 For school - Already in levels prog — [illegible] TA; we [illegible] technique, motivational help; ultimately how to evaluate levels prog vis a vis reg. prog. — what to do with record keeping

1.3 For CBE - Already had indiv. prog & felt CBE could use our concepts, mtls, org, etc.; [illegible] guinea pig

2. Strengths (of CBE's technical assistance)
a. Leslie & Pat available & responsive to requests — good at it!; Leslie & Pat also ID'd and provided resource mtls.; workshops well organized & good info (seminars)

3. Weaknesses (of CBE's technical assistance)
a. Disappointment — no adequate record keeping procedures — apparently not available yet. —

4. Critical Incidents (events that strongly reinforced a perceived strength or weakness)
a. The day Leslie & Pat spent at Barlow w/ 12-13 teachers — on individual teacher projects — one on one consulting

5. What have you, and your school, done with the results of any assistance provided by CBE?
We plugged in units that were developed, resource material info, etc. into existing programs; motivation & program planning is more comfortable for staff → our interaction with NWREL & staff

What do you plan to do with the results in the future?
Will probably be push in continuous progress — so we'll need to expand CBE to help that movement

6. General Comments:

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed 10/21 Respondent Bob Taylor Position Principal

District Gresham

School Sam Barlow

1. **Expectations** (with respect to technical assistance from CBE, NWREL):

1.1 For self - In levels prog. already — had been doing ind. in science + wanted more materials & changes in teaching styles — wanted teachers to be more than

1.2 For school - record clerks (even worse now with the advent of quarter credits; wanted to see more supporting services + mgmt techniques for CBE

1.3 For CBE - Thru linkage with Nat'l network + research base, NWREL would have been able to ID some practices + helps for districts

2. **Strengths** (of CBE's technical assistance) function

a. Help was given in making teachers less as record keepers and more as managers of learning

3. **Weaknesses** (of CBE's technical assistance).

a. Still no attack on record keeping — Barlow still experimenting on their own

b. Limited NWREL resources for staff training + intensifying + following up training

4. **Critical Incidents** (events that strongly reinforced a perceived strength or weakness)

Different attitudes about ~~[illegible]~~ s

5. What have you, and your school, done with the results of any assistance provided by CBE?

Scope of project (goals, activities) too great for the NWREL staff available

NWREL staff that is available have been responsive and helpful but they can't be experts in all areas

What do you plan to do with the results in the future?

6. ~~General~~ NWREL Comments:

a. Could operate on a contract basis for record keeping + training — NWREL would subcontract ~~with~~ staff or hire consultant with record keeping + record keeping training

b. Hell of a distance between CBE concepts + actual practice — need cadre to move into schools + show it can work

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed 10/1/79 Respondent Jack Hopper Position Math

District Multnomah

School: Jefferson

1. Expectations (with respect to technical assistance from CBE, NWREL):

1.1 For self - hoped NWREL could give exemplary stuff in minimum amt. of time that would have direct application in the classroom

1.2 For school -

1.3 For CBE -

2. Strengths (of CBE's technical assistance)

Lloyd Meskimen + Linda Christensen ~~Korotte~~ have prep time to work with NWREL

3. Weaknesses (of CBE's technical assistance)

Teachers have no time and without released time pay won't have any; need summertime to work on new ideas that can be implemented in the fall - teachers have to be directly involved in the work.

4. Critical Incidents (events that strongly reinforced a perceived strength or weakness)

5. What have you, and your school, done with the results of any assistance provided by CBE?

Nothing in math; I understand Linda Christensen and colleagues in language arts are applying what they learned - that's because they were paid for released time to work on it.

What do you plan to do with the results in the future?

Nothing in math

6. General Comments:

Nothing will happen as a result of TA from the outside to the teachers; it has to happen with the teachers - change won't happen if the principal + NWREL plan + pass notes back and forth to the teachers.

Fill out HALL Questionaire

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed 10/2/79 Respondent David Dubose Position Math, Dept. Head

District Gresham

School Sam Barlow

1. **Expectations** (with respect to technical assistance from CBE, NWREL):

1.1 For self - ~~Hoped to have~~ I had Ray - geom. course — hoped for some creative input

1.2 For school - a. Basic math - ~~expected~~ expected changes from CBE; hoped CBE might be informative & stimulative to persons not familiar with levels & individualization.

1.3 For CBE - Now I know Barlow's trying new approaches would be helpful to Lab in an empirical sort of way

2. **Strengths** (of CBE's technical assistance)

a. Got good suggestions ~~from~~ Pat Eronson in putting together existing material & using new materials

b. Did good job for ~~new~~ teachers new to CBE concepts in two workshops — Especially half day workshops in middle of year.

3. **Weaknesses** (of CBE's technical assistance)

a. Disappointment — couldn't come up with a more logical grading & recording system consistent throughout the school - this is partly a political problem - old line teachers, computer program vs. tchrs, ESD vs. District etc. -

4. **Critical Incidents** (events that strongly reinforced a perceived strength or weakness)

a. ~~Be~~ Being able to call in Pat & work on own problems

5. What have you, and your school, done with the results of any assistance provided by CBE?

Specifically, use results of help to modify curriculum

+

What do you plan to do with the results in the future?

6. General Comments:

New curric Director, Standardization Tests year to prepare for, many things to do, all will help contribute to our not doing as much with the results of the CBE/Barlow Project as we might

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

Date Interviewed 10/2/79 Respondent Erma Little Position Chairperson Planning Committee

District N. Clackamas

School Clackamas H.S.

1. Expectations (with respect to technical assistance from CBE, NWREL):

1.1 For self - Expected help in constructing phraseology for writing goals, objectives, indicators; also expected CBE to let me know any District competencies I should have

1.2 For school -
NWREL shouldn't just analyze ours - if they know how to write them they should come up with the shortest Number District needs and let teachers and their own

1.3 For CBE -
Suppose that by [illegible] District + seeing their naivete on competencies they could adjust their training + be willing to just write them + hand them to us.

2. Strengths (of CBE's technical assistance)
a. Very helpful when NWREL made printout showing what courses took care of what District competencies

3. Weaknesses (of CBE's technical assistance)
a. Laid no groundwork before going into teachers' meetin.
① Teachers got it cold ② Early in fall before school started + teachers preoccupied ③ teachers rebelled ④ couldn't be heard in back of room ⑤ too much, too fast ⑥ No warmup or needs assessment

4. Critical Incidents (events that strongly reinforced a perceived strength or weakness)
a. The Oct., 1978 workshop

5. What have you, and your school, done with the results of any assistance provided by CBE?
Most have tried to forget it

What do you plan to do with the results in the future?
d. Experts, like Pat should write sets of District competencies + state + Districts should make teachers use them

6. General Comments:
c. Teachers have to research + dig out competencies on their own, no inservice or info on it
a. NWREL should write competencies for the District, not make us research them out;
b. Everybody's going to be glad when competencies

⑦ Assignment for small groups was too much - too overwhelming

Data For Summative Evaluation, CBE Technical Assistance, 1978-1979

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

Competency Based Education

INTERVIEW GUIDE

A

Date Interviewed 10/2/79 Respondent Mike Tannenbaum Position Curriculum Director

District N. Clackamas

School District Level

1. **Expectations** (with respect to technical assistance from CBE, NWREL):

   1.1 For self - I saw it as a worthy project and how I, Mike, could facilitate it - Mike has helped facilitate Henry (Clackamas H.S.) and his staff working with the lab

   1.2 For school - Expected NWREL assess CBE at Clackamas + make suggestions improve Cl. assess) - expectations have been met.

   1.3 For CBE - ~~(That things)~~ None thought about.

2. **Strengths** (of CBE's technical assistance)
   a. Project (CBE) had a wealth of ideas - a lot of options to choose from.
   b. NWREL helped teachers choose options they didn't force them

3. **Weaknesses** (of CBE's technical assistance)
   (a) Miscommunications at start; N. Clackamas Supt. expected NWREL would have everything written
   (b) Initial presentation bombed - mostly

4. **Critical Incidents** (events that strongly reinforced a perceived strength or weakness)
   (b) Last meeting, end of summer, 1979 teachers + Leslie + Ron IDP and worked through a make up center idea decided to address larger issues

5. What have you, and your school, done with the results of any assistance provided by CBE?
   Things discovered at Clackamas H.S. can be applied district-wide, e.g. perhaps revising planned course statements
   What do you plan to do with the results in the future? the scenario Mike is considering revising ~~to~~ to make articulated K-12 curriculum - hook up the whole thing e.g. match up 9-12 program goals ~~w~~ in Planned Course Statements

6. General Comments:

Project has helped Dist look at total H.S. program in a way it might not otherwise have done

N Clackamas has indicated they'd like to continue with NWREL

APPENDIX C

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

TO:

FROM: Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as a third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational laboratory. It is my understanding that CBE personnel provided technical assistance to your organization during 1978-1979 with respect to curriculum development and teacher training.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?

2. What were the major weaknesses of the technical assistance?

3. Did you use the results of the technical assistance? ____Yes ___No
   If so, how?

4. For your purposes, was the technical assistance (check one)
   ___Excellent ___Good? ___Fair? ___Poor?

5. General Comments:

C

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

TO : Mr. Herb Berg, Superintendent
Centralia Washington School District No. 401

FROM : Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational Laboratory. It is my understanding that CBE personnel provided technical assistance to your organization during 1978-1979 with respect to a one day MBO workshop.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?

Introduction to theroy of MBO — "soft sell as per request; actual NWL personnel.

2. What were the major weaknesses of the technical assistance?

none

3. Did you use the results of the technical assistance? ✓ Yes ___No
If so, how?

in prioritizing mangement goals for the year.

4. For your purposes, was the technical assistance (check one)
X Excellent? ___Good? ___Fair? ___Poor?

5. General Comments:

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

TO : Mr. George Maykowskyj, Ass't Superintendent
Valdez City School District

FROM : Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational Laboratory. It is my understanding that CBE personnel provided technical assitance to your organization during 1978-1979 with respect to curriculum development and teacher training.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?
Warm personality of the members to our staff. Expertise and excellent organization of presentations. Experience in handling paper work.

2. What were the major weaknesses of the technical assistance?
None —

3. Did you use the results of the technical assistance? ✓ Yes ___No
If so, how?
We are currently implementing results and continuing the process

4. For your purposes, was the technical assistance (check one)
✓ Excellent ___Good? ___Fair? ___Poor?

5. General comments:

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

Received in Galena
10-22-79
P.E. Flisock

TO : Mr. Peter Flisock, Superintendent
Galena City School District

FROM : Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational Laboratory. It is my understanding that CBE personnel provided technical assistance to your organization during 1978-1979 with respect to staff development and program review and revision.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?

Continuity of Program Development

2. What were the major weaknesses of the technical assistance?

Published materials arrive too late after the inservice programs — enthusiasm for follow up weak!

3. Did you use the results of the technical assistance? X Yes ___No
If so, how?

4. For your purposes, was the technical assistance (check one)

X Very Good

___Excellent? _/_Good? ___Fair? ___Poor?

5. General Comments:

I'm very happy with the work provided ~~[illegible]~~ by NWREL and as I said the final published curriculum arrived late but other than that — we will continue to contract with them for this service.

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

TO : Dr. Ed Keuer, Director of Teacher Training
Concordia College

FROM : Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational Laboratory. It is my understanding that CBE personnel provided technical assistance to your organization during ~~1978-1979~~ 1979-1980 (Fall 1979) with respect to curriculum development.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?
   - Practicality of CBE program suggestions - usable data
   - Offered us options of various models & designs
   - Personnel was very comfortable to work with
   - NREL lab staff was committed to really helping us out →
2. What were the major weaknesses of the technical assistance?

   Tight time schedule, too much to be done in too short a time; we needed additional consultation, but our funds shortage prohibited additional contracting.
3. Did you use the results of the technical assistance? X Yes ___No
   If so, how?

   To help us in aspects of our Self-Study for meeting Teacher Standards and Practices Commission certification requirements for Teacher Education programs. Very valuable assistance was given in CBE.
4. For your purposes, was the technical assistance (check one)

   ___Excellent? ___Good? ___Fair? ___Poor?
5. General Comments:

   Wish we could have afforded more consultation, but the training helped educate our Staff/Faculty on the Competency-based approach to teaching college courses, esp. in the prof. tchr. ed area.

Ed Keuer 10/24/79

OCT 19 1979

October 13, 1979

32120 Cypress Point
Wilsonville, OR 97070

TO : Ms. Barbara Mathis, Director
CBE Program, Georgia State Department of Education

FROM : Leo W. Myers, Educational Consultant

SUBJECT: Evaluation of Technical Assistance

I am serving as third-party evaluator of technical assistance provided by the Competency Based Education (CBE) Program of the Northwest Regional Educational Laboratory. It is my understanding that CBE personnel provided technical assistance to your organization during 1978-1979 with respect to teacher training.

Please complete the items below and return this memo to me in the enclosed envelope by October 26, 1979. THANK YOU!

1. What were the major strengths of the technical assistance?
NW Lab material was adapted specifically for Georgia's CBE graduation requirements. Examples used in the presentations were taken from Georgia State Board Policy. All participatory activities involved writing competency statements for Georgia's graduation skill requirements. The expertise of the consultants was evident. The consultants were capable of handline 4 separate workshop topics in adjusting the material to the needs of each group.

2. What were the major weaknesses of the technical assistance?
Major weaknesses were the result of our planning and not the NW Lab consultants. We did not allocate adequate time to provide the indepth kinds of assistance our local system representatives wanted. To receive follow up, indepth assistance placed a financial hardship on local school systems helping pay travel expenses for the consultants from Oregon to Georgia.

3. Did you use the results of the technical assistance? _X_ Yes ___ No
If so, how?
Georgia has used the workshop material supplied by NW Lab and the research reports supplied by the Lab to (a) provide assistance to 10 pilot LEAs developing Georgia's CBE Program, (b) as a research bank for decision making by the Georgia Project Leadership, and (c) as a staff development resource for 187 Georgia school systems.

4. For your purposes, was the technical assistance (check one)

_X_ Excellent? ___ Good? ___ Fair? ___ Poor?

5. General Comments:

As Georgia begins implementation of a comprehensive competency based education program, I am grateful for the knowledge about what has succeeded and what has failed in other field test sites in the country. My information was provided by representatives of the NW Lab. In some cases their assistance has enabled us to replicate successful programs being conducted across the country. In other cases their information and assistance has enabled us to avoid making costly mistakes which other field test sites made before us - we have profited from the experiences of other State successes and failures.

APPENDIX D

Log of Targeted Development Activities

Clackamas High School

Date	Task
2/07/79	Review analysis of planned course statements with Henry and Mike.
2/17/79	Reviewed analysis with Planning Group and Department Chairs.
6/15/79	Met with Planning Group to review paper on competency make-up.
6/25/79	Work with Erma on planned course statements in Asian studies.
8/27/79	Met with Planning Group on competency make-up.

APPENDIX D

Log of Targeted Development Activities

Sam Barlow High School

Date	Task
12/07/78	Worked with seven teachers in developing learning packages for levels classes.
1/30/79	Penny Miller, Pers. Finance teacher, telephone request to help lower reading level of materials.
2/06/79	Review work to date and plan rew. work with Planning Group. (Record-keeping, evaluation, interdisciplinary Press Release, Individualized instruction).
2/14/79	Plan interdisciplinary activities with interdisciplinary team.
6/15/79	Bob Taylor request for assistance in CBE presentation.

APPENDIX D

Log of Targeted Development Activities

Jefferson High School

Date	Task
12/06/78	Update planning meeting with Beyer.
1/17/79	Set up training schedule and discuss with Beyer grade promotion problem.
4/18/79	Craig Farnham request for assistance in dealing with discipline in a positive manner.
4/24/79	Evaluate progress with Craig since 4/18 - Revisions.
5/01/79	Continue evaluation with Craig.
5/10/79	Continue evaluation with Craig.
6/14/79	Plan staff help for social studies workshop.
6/18/79	T.A. to Health Department.
6/20/79	Visit to site, Doyle and staff writing Competency PI's, etc.

APPENDIX 1

ABSTRACTS OF PROMISING PRACTICES

PRODUCT Remediation for elementary and secondary school students

DEVELOPER Flint Community Schools

DESCRIPTORS

Overview

Flint has determined minimal competencies in reading and math. Those students who do not meet minimal standards receive special treatments appropriate to their grade level and the extent of their deficiencies. In the elementary schools students may (1) repeat a grade, but at a different building or (2) move to the next grade level, but with enrollment in a developmental class in the area of need. In the secondary schools, students may (1) be scheduled into remedial courses or (2) attend limited summer school sessions. The final course of action in any case is determined jointly by several of the involved parties, with no single datum controlling the outcome.

Rationale & General Objectives

The intent of the remediation guidelines is to ensure that students do not move on to more difficult tasks until prerequisite skills are mastered. This should increase success rates among those students approaching graduation and, indirectly result in more competent graduates.

Implementation Requirements

A system of competency evaluations is required along with developmental skill building courses added as part of the curriculum. A grade promotion screening routine will need to be in place.

Technical Assistance Contact

Dr. Leonard Murtaugh, Director of Instructional
Services
923 E. Kearsley Street
Flint, Michigan 48502

Target Audience

Students K-12 who do not meet grade level standards.

Materials/Costs

No printed materials describing the remediation strategy are currently available.

Evaluation (Evidence of Effectiveness)

No formal evaluation of strategies has been conducted.

Assurances & Claims

N/A

Supplier

Dr. Leonard Murtaugh, Director of Instructional
Services
923 E. Kearsley Street
Flint, Michigan 48502

Available on loan from NWREL:

PRODUCT Suggested Guidelines for the Development and Implementation of a Competency Based Education Program

DEVELOPER Georgia Department of Education

DESCRIPTORS

Overview

This document provides an overview of the planning process for the implementation of CBE at the local district level, based on the GA state guidelines. Topics include: CBE background, purpose of CBE in Georgia, graduation requirements, program components, CBE program planning functions, legal validity for graduation requirements, beginning steps, timeline and tasks.

Rationale & General Objectives

Georgia's CBE program is based on life-related skill application competencies and was implemented as a means of improving secondary instruction. Implementation of the Georgia CBE Program has implications for curriculum, instruction, guidance and counseling, recording and reporting, pupil and program assessment, management and communications and staff development.

Implementation Requirements

None.

Technical Assistance Contact

CBE Program.

Target Audience

Secondary teachers and administrators.

Materials/Costs

Paper - 15 pages (5¢ per page)

Evaluation (Evidence of Effectiveness)

None.

Assurances & Claims

None.

Supplier

Georgia Department of Education.

Available on loan from NWREL:

Copy of paper.

PRODUCT Competency Test Items

DEVELOPER Baker School District #5J
Baker, Oregon

DESCRIPTORS

Overview
This document provides at least one suggested item for each of the Baker District's maximum competencies. Items were developed by the district in reading, listening, analyzing, speaking, writing computing science, health, PE, citizenship, environmental, traffic safety, consumer, and career development.

Rationale & General Objectives
Baker District developed these items to help teachers see what level of student performance might meet the minimum competencies identified by the district and to save teachers time in creating items to measure competencies.

Implementation Requirements
None.

Technical Assistance Contact
CBE Program.

Target Audience
Secondary Teachers and Administrators.

Materials/Costs
Competency Test Items - 178 pages.

Evaluation (Evidence of Effectiveness)
None.

Assurances & Claims
None.

Supplier
None.

Available on loan from NWREL:
1 copy.

PRODUCT Materials related to competency based education.

DEVELOPER Craig City Schools
P. O. Box 166
Craig, Alaska 99921

DESCRIPTORS

Overview

In an attempt to better meet the needs of its student population Craig City Schools have identified exit level skills for primary students and organized secondary instruction into mini-course electives with identified competencies related to post high school and career expectations. Students move on a continuous progress basis. Teachers, students and parents conference 4 times a year. An appearance before a graduation board (parent, school staff, school board members) is required. The student answers oral questions about practical living and career skills and board members vote on whether the student is ready to graduate.

Rationale & General Objectives

Craig City Schools has developed a "humanistic" educational system which describes specific behavior and learning expectations for students, parents, teachers and administrators. Competencies are based on expected life skill needs of students and instruction is flexible in terms of both time and method. Credit is granted for both elementary and secondary courses when competencies are demonstrated. Evaluation of student performance by staff, of teacher performance by students, of administrator performance by staff and students and of programs by students, staff, administrators and the community is a part of the system.

Implementation Requirements

None.

Technical Assistance Contact

None.

Target Audience

Teachers, administrators - K-12.

Materials/Costs Papers, at 5¢ per page:

1) Competency Based Education (Sprinkled With Free Advice).
2) Alternatives Don't Improve Anything--People Do.

Descriptions of Process & Forms:

3) Evaluation forms: student, teacher course, administrator program building.
4) Teacher Job Description.
5) Career Graduation Requirements.
6) Exit Level Requirements from Primary Basic School.
7) Fisheries Objectives.
8) Upper Basic Learning Contract.
9) Graduation Board.
10) Sample Recordkeeping forms.

Evaluation (Evidence of Effectiveness)

None.

Assurances & Claims

None.

Supplier

Available on loan from NWREL:

Above materials.

PRODUCT Diagnostic Kit and Strategies Kit

DEVELOPER Seattle Public Schools Minimum Competency Assurance Program

DESCRIPTORS

Overview

After an initial screening test on minimum competencies in grades 4, 7 and 11, students who do not meet minimum requirements are referred to the Diagnostic Kit for items which pinpoint the specific skill deficiency. The deficiency is keyed to a series of activity cards which describe a learning activity in each of 3 categories: 1) motivational skills development or evaluation; 2) individual, small group or large group; 3) teacher directed or self-directed. Each card lists and describes the teaching strategy, the time required and the materials and resources needed. Both the Diagnostic and Strategies Kits are cross-referenced to the 16 competencies required for graduation from Seattle Public Schools Competencies, diagnostic items and learning activities are listed in mathematics and three English skill areas: oral skills, writing skills and reading skills. Many activities are life-role focused. The Kits provide a model for an instructional system to accompany a minimum competency testing program. Recordkeeping forms are included in the Kit.

Rationale and General Objectives

Upon implementing a minimum competency testing program, Seattle Public Schools acknowledged its implications for instruction. These Kits reflect the district's concern for locating and correcting skill deficiencies by providing teachers with materials and activities for remediation for students who do not satisfy minimum competencies through regular instruction.

Implementation Requirements

The lists are self-explanatory.

Technical Assistance Contact

Target Audience

The Kits were created for Seattle teachers and are keyed to Seattle's competencies but other teachers may wish to examine the format that's been developed.

Materials/Costs

The Kits are available at the cost of duplication and postage.

Evaluation (Evidence of Effectiveness)

Not available.

Assurances & Claims

None.

Supplier

Marshall Curriculum Center
520 NE Ravenna
Seattle, WA 98115

Available on loan from NWREL:

1 copy.

PRODUCT Life Role Competencies Survey Results:
A Progress Report
School District of Lancaster, PA,
Project 81

DEVELOPER John Tardibuono, Project Director
Judy Hahn, Acting Project Director

DESCRIPTORS

Overview

The Report traces the history of Project 81 in the Lancaster, PA, School District from November, 1976 to the Report date, October, 1978. Survey procedures are described and results are displayed.

Rationale & General Objectives

Project 81 was mandated by the PA State Board of Education in January, 1976. The mandate included the following criteria:

- a redefinition of the purposes of public education in terms of competencies
- a plan for maximizing community involvement in the schools
- a plan for shifting State Board curriculum and graduation requirements from the present dependence on courses, credits and Carnegie units to the newly developed competencies.

Implementation Requirements

This document provides sufficient detail to assist school districts in conducting similar surveys and displaying the results.

Technical Assistance Contact

Director, Project 81

Target Audience

Curriculum planners, administrators and others involved in implementing competency based education programs.

Materials/Costs

Available for cost of reproducing and mailing.

Evaluation (Evidence of Effectiveness)

75% of the surveys were returned. Results are being used for school district planning efforts.

Assurances & Claims

None.

Supplier

Director, Project 81
School District of Lancaster
Lancaster, PA

Available on loan from NWREL:

Life Role Competency Survey Results: A Progress Report
School District of Lancaster, PA, Project 81

PRODUCT John H. Reagan, Fundamental School

DEVELOPER Houston Texas Independent Public School District

DESCRIPTORS

Overview

The Fundamental School emphasis is one of practical education to prepare students for future lives. In an atmosphere stressing self-discipline, individual worth, positive self-concepts and civic responsibility, skills and knowledge in reading, spelling, mathematics, English usage, science, history and government are taught. Minimum academic competencies have been identified and required in the areas of English, Math, History, Science, and Reading. Competency mastery is sequential, requiring students to pass competencies for English 1A and 1B before proceeding to English 2A and so on. The program has also identified general competencies which are woven into all course offerings and accomplished by daily participation in the courses.

Rationale & General Objectives

The heart of the program is the special attention given to "average" students -- those students who may need help but seldom receive this help because they are average and not on either end of the continuum of slow learners or academically able, where most special programs of individual attention are focused.

Implementation Requirements

The program description identifies the issues and focus which must take place prior to and during implementation.

Technical Assistance Contact

John H. Reagan Sr. High
1356 and Arlington Street
Houston, Texas 77008

Target Audience

Secondary Schools desiring to implement a competency approach to prepare students for life.

Materials/Costs

No known cost.

Evaluation (Evidence of Effectiveness)

John H. Reagan Sr. High has used the TASK test to assess overall student achievement.

Assurances & Claims

None.

Supplier

John H. Reagan.

Available on loan from NWREL:

Program description document.

PRODUCT CBE Recordkeeping for the Classroom: Suggestions & Samples

DEVELOPER CBE Program, NWREL.

DESCRIPTORS

Overview

This document presents an overview of the purposes and audiences for recordkeeping within the CBE models and suggestions and sample forms for reducing the clerical burden on teachers. Since the management of the instructional cycle also has an impact on recordkeeping, the teacher tasks in instruction and recordkeeping are also analyzed.

Rationale & General Objectives

A major technological problem inhibiting the use of diagnostic/prescriptive instruction and outcomes-based instruction is the volume of clerical and recordkeeping tasks that teachers must accomplish. Teachers will not voluntarily assume additional clerical responsibility, so the technology of recordkeeping must be improved if teachers are to use the CBE instruction model. This paper suggests ways to reduce or displace the recordkeeping tasks and provides samples of several ways to record needed data.

Implementation Requirements

None.

Technical Assistance Contact

CBE Program.

Target Audience

Secondary teachers and administrators.

Materials/Costs

26 pages 0 cost.

Evaluation (Evidence of Effectiveness)

None.

Assurances & Claims

All sample recordkeeping systems are actually in use in elementary and secondary classrooms.

Supplier

CBE Program.

Available on loan from NWREL:

Paper listed above.

PRODUCT High School Graduation Requirements and Support Materials

DEVELOPER Fairfield-Suisun Unified School District, Fairfield, California

Overview

Graduates of the Fairfield-Suisun Unified School District will have demonstrated a core set of competencies (required of all students) as well as a set of competencies related to a specific "major" area of study (16 majors related to career and post high school expectations). In addition, three sets of competencies have been identified for each secondary course: 1) required objectives (must be taught & learned); 2) desirable objectives (must be taught); 3) enrichment objectives (may be taught). The objective sets provide for sequential skill, knowledge and affective development and answer a concern that the "minimums will become the maximums in CBE."

Rationale & General Objectives

Fairfield-Suisun has chosen to implement a competency based education program that has involved parents, students, community members and school personnel in a dialogue about the outcomes of school. School personnel see the program as a shift away from course/credit accumulation and toward an accounting of specific competencies and skills that are a result of course work. Competencies and their evaluation meet the requirements of AB 3408, California's competency requirements legislation.

Implementation Requirements

Fairfield-Suisun has a sophisticated computerized recordkeeping system used primarily by students and counselors.

Technical Assistance Contact

Marvin J. Woodstrup
Ass't. Sup. Educational Services
Fairfield-Suisun Unified School District
1025 Delaware Street
Fairfield, California 94533
(707) 422-3200

DESCRIPTORS

Target Audience

Teachers/administrators of 7-12 programs.

Materials/Costs

1) Implementation of the High School Graduation Requirements.
2) Common Core Check List.
3) Intermediate School Essential Objectives.
4) Elementary Essential Objectives.
5) Performance Indicators for Elementary Essential Objectives Grade 6.
6) Health Services Program (9-12).

Evaluation (Evidence of Effectiveness)

None provided.

Assurances & Claims

None.

Supplier

From Fairfield-Suisun.

Available on loan from NWREL:

Materials listed above.

PRODUCT Using Branching Programs to Individualize Instruction

DEVELOPER Ron Smith
Northwest Regional Educational Laboratory; Portland

DESCRIPTORS

Overview
Large group instruction (25-35 students) can be successfully individualized using branching curriculum programs. Such programs include a set of core activities with which all students are involved and a separate set of optional activities from which students choose to extend the range of application of the core concepts. These often require integration of more than one subject area. The grading system rewards involvement with the optional activities. Students self-select to participate. Most optional activities involve hands-on, experiential, problem solving assignments.

Rationale & General Objectives
Optional activities selected on the basis of student interest and building on core concepts produce the effects of (1) increased motivation and (2) increased facility with core concepts and operations. This is a low cost, high impact strategy that could be implemented in nearly any classroom.

Implementation Requirements

Teacher planning time, activity resources and ideas, and sample materials will be required for implementation. A reward system to support student participation is also needed.

Technical Assistance Contact

Ron Smith
CBE Program, Northwest Regional Educational Lab
710 SW Second
Portland, Oregon

Target Audience
Teachers.

Materials/Costs
A sample science unit using a branching program is available at reproduction costs.

Evaluation (Evidence of Effectiveness)
No formal evaluation has been conducted.

Assurances & Claims
N/A.

Supplier

Northwest Regional Educational Laboratory
Portland, Oregon

Available on loan from NWREL:

PRODUCT Community Involvement in Setting Graduation Outcomes

DEVELOPER Flint Community Schools

Overview

Flint has a long history of constructive community involvement in school matters. When a new program is considered, a process of organizing steering committees, surveys, and town hall meetings ensures that all the members of the ed. community have a chance to contribute their points of view.

Rationale & General Objectives

Community involvement helps build consensus, clarifies issues and helps schools be more responsive to the communities they serve.

Implementation Requirements

A communications rationale and designated liaison from the school staff are required to build effective community participation. In addition, skills in group dynamics and problem solving are needed by the liaisons as well as skills in constructing and interpreting attitude surveys.

Technical Assistance Contact

Dr. Leonard Martaugh, Director of Instructional Services
923 E. Kearsley Street
Flint, Michigan 48502

DESCRIPTORS

Target Audience

School Administrators.

Materials/Costs

No printed materials describing the community involvement strategy are currently available.

Evaluation (Evidence of Effectiveness)

The developer has documented several instances of success in the application of the community involvement practices.

Assurances & Claims

N/A

Supplier

Dr. Leonard Martaugh, Director of Instructional Services
923 E. Kearsley Street
Flint, Michigan 48502

Available on loan from NWREL:

PRODUCT Elementary and Secondary Curriculum Guides: Adak (Alaska) Region Schools, Southwest Region Schools, Dillingham, Alaska, and Galena City Schools, Galena, Alaska

DEVELOPER Curriculum & Administrative Services Program, and CBE Program
Northwest Regional Educational Lab

DESCRIPTORS

Overview

These curriculum guides provide a model for implementing competency based education K-12. Sequential skill lists by program area (e.g., Lang. Arts, Math, Social Studies) in the elementary grades and Planned Course Statements for secondary courses can be used by teachers in developing their own competency based curriculum. Both elementary and secondary goals & objectives are based on identified exit level competencies. Courses emphasize skills needed in rural Alaska, as well as general skills.

Rationale & General Objectives

In planning a competency based curriculum, teachers assigned to develop curriculum often find it helpful to examine models. All of these documents were created by teachers to meet the needs of their students and are based on identified exit level competencies which are woven into the course structure. All are appropriate models of CBE curriculum development.

Implementation Requirements

None.

Technical Assistance Contact

CBE Program.

Target Audience

Secondary teachers and administrators.

Materials/Costs

Adak Region Schools Secondary Curriculum Guide, 375 pg.
Adak Region Schools Elementary Curriculum Guide
Southwest Region Schools Secondary Curriculum Guide, 242 pg.
Galena City Schools Elementary Curriculum Guide, 54 pages and Science Resource Guide, 27 pages
Galena City Schools Secondary Curriculum Guide, 276 pg.

Evaluation (Evidence of Effectiveness)

None.

Assurances & Claims

None.

Supplier

CBE Program.

Available on loan from NWREL:

Documents listed above.

PRODUCT Rex Putnam Unified Science Units

DEVELOPER Science Department
Rex Putnam High School
Milwaukie, Oregon

Overview

These 11 - 20 page science units offer a series of experiments and self-check exercises for the following titles:

- Do You See What I See? - a unit that examines the differences between qualitative and quantitative observations and between observations and inferences.
- Is Your World My World? - this unit is devoted to the world community System International(SI).
- The Guessing Game - a unit devoted to the exploration and definition of a model.
- The Living Model - students develop a model that deals with living material.
- The Gene Machine - students study genetics and how traits are passed from parents to the next generation.
- Sorting Things Out - a unit devoted to concise classification and organization of information.
- Natural Fingerprints - students develop skills for identifying common substances found in many materials.
- Molecular Disco - this unit explores heat energy, temperature, and measurement of the quantity of heat energy used.
- Does Energy Matter? - this unit deals with other forms of energy and energy converters.
- A Tail of Two Mice - students learn about the life cycle, energy requirements and the care and handling of a living thing.

Each unit provides answers to questions and vocabulary words are listed and defined. The science units were created as part of an integrated, interdisciplinary science program.

Rationale & General Objectives

The Rex Putnam competency based science course uses a unified science philosophy. Unified science education is a tested approach to organizing science learning experiences that emphasize the development of skills and concepts with broad applicability across the various science disciplines. It therefore provides an excellent preparation for any later science instruction and at the same time creates learning of great personal usefulness for those students who will not elect to formally study science beyond the required level.

Implementation Requirements

The material is self-explanatory.

Technical Assistance Contact

Dave Cox
Rex Putnam High School
4950 SE Roethe Road
Milwaukie, Oregon 97222

DESCRIPTORS

Target Audience

Science teachers in grades 10-12.

Materials/Costs

Evaluation (Evidence of Effectiveness)

The school's evaluation has shown that because of the integrated science units, class enrollment is greater, there is increased elective enrollments in science, increased staff morale and a reduced number of failures in the required science course.

Assurances & Claims

None.

Supplier

Available on loan from NWREL:

The document described above.

PRODUCT North Slope Borough School District Secondary Curriculum Guide

DEVELOPER North Slope Borough School District

DESCRIPTORS

Overview

Provide district with 87 sample student life role related competencies, planned course statements for a comprehensive secondary curriculum to deliver the basic competencies and others, recordkeeping system and student transcripts.

Rationale & General Objectives

CBE was implemented in this district in order to standardize the core curriculum district-wide, reduce the discoordinating effects of high teacher turnover on curricular continuity for students and to involve students, parents, teachers and other community members in productive dialogue about the outcomes of education.

Implementation Requirements

None.

Technical Assistance Contact

CBE Program.

Target Audience

Secondary teachers and administrators.

Materials/Costs

None.

Evaluation (Evidence of Effectiveness)

None.

Assurances & Claims

None.

Supplier

Available on loan from NWREL:

1 copy of North Slope Borough School District Secondary Curriculum Guide.

PRODUCT K-12 Curriculum Guides

DEVELOPER Parkrose Public Schools
Portland, Oregon

Overview

Teachers from Parkrose Public Schools have produced planned course statements for their curriculum areas, K-12. The statements express student performance. In some of the guides, performance indicators are also given. For 7-12 courses, information is given concerning course length, number of term hours, grade levels, prerequisites, whether credit can be earned by exam, whether the course is required, selective or elective, and whether alternative learning opportunities are available. Program goals are listed along with a course overview.

Rationale & General Objectives

The Parkrose staff has worked since the early 1970's to implement educational programs which are well defined, based on performance objectives, and which lend themselves to evaluation of results. Since that time there has been considerable effort and field testing to establish coordination and integration of the program. This has resulted in modifications designed to produce the best possible program for grades K-12.

Implementation Requirements

None.

Technical Assistance Contact
None.

DESCRIPTORS

Target Audience

These Guides were produced by and for the teachers of Parkrose Public Schools. Others have found them valuable resources as they prepare their own course statements.

Materials/Costs

Each document is priced separately and may be ordered from the district.

Evaluation (Evidence of Effectiveness)

See Rationale.

Assurances & Claims

None.

Supplier

Parkrose Public Schools
10636 NE Prescott
Portland, Oregon 97220

Available on loan from NWREL:
Parkrose Curriculum Materials: P.E., Lang. Arts, Personal Finance, Math, Performing Arts, Foreign Lang., Health, Art, Music, Social Studies, Science, Home Ec., Industrial Arts, Business Ed.

PRODUCT Evaluating the Educational Outcomes of Your Local Schools, A Manual for Parents and Citizens

DEVELOPER Citizens Research Council of Michigan
Detroit/Lansing, Michigan

DESCRIPTORS

Overview

This brief manual with self-scoring exercises encourages parents and others to evaluate schools on the basis of student learning outcomes rather than educational inputs (per pupil expenditures, etc.) The manual helps the user distinguish outputs from inputs, understand the two basic approaches to measuring outcomes, analyze test results and use evaluation data effectively. Included is a bibliography on educational outcomes.

Rationale & General Objectives

An understanding of the basic concepts of school evaluation will prepare community members to make better decisions about their schools and act as more productive forces for educational improvements.

Implementation Requirements

The manual is self-contained.

Technical Assistance Contact

Citizens Research Council of Michigan
500 Guardian Bldg., South
Detroit, Michigan 48226

Target Audience

Parents and other community members.

Materials/Costs

Undetermined cost for manual.

Evaluation (Evidence of Effectiveness)

No evaluation results are available.

Assurances & Claims

N/A

Supplier

Citizens Research Council of Michigan
500 Guardian Bldg., South
Detroit, Michigan 48226

Available on loan from NWREL:

PRODUCT Michigan Life Role Competencies Project

DEVELOPER Michigan Department of Education

DESCRIPTORS

Overview

The Life Role Competencies Project is a set of books that includes student outcomes, at three levels of specificity (competency, component, performance objective) in four life role areas including (1) personal and family management; (2) civic and social responsibility; (3) employability and occupational skills; and, (4) aesthetic and humanistic appreciations. Each performance objective is referenced to a suggested evaluation method. The collection of outcomes in each life role area has a companion test item (multiple choice) pool booklet. The Department is investigating applied performance testing and is preparing a life role assessment test.

Rationale & General Objectives

There are essential skills that students need to acquire to function effectively in adult life roles. This Project will help school districts identify essential skills and help them evaluate and revise their curriculum to ensure that students will be competent when they graduate.

Implementation Requirements

A local district goals/curriculum review and revision process needs to be in place if best use is to be made of these outcomes.

Technical Assistance Contact

Dr. Sharif M. Shakrani, Coordinator,
Test Development
Michigan Ed. Assessment Program
Michigan Department of Education
P. O. Box 30008
Lansing, Michigan 48909

Target Audience

School boards, Administrators.

Materials/Costs

Evaluation (Evidence of Effectiveness)

N/A

Assurances & Claims

The outcomes were widely validated within Michigan by groups of educators and community people.

Supplier

Michigan State Department of Education.

Available on loan from NWREL:

PRODUCT Grades, Credits and Competencies in High School Courses: A Practical Application

DEVELOPER Sturgis High School
Sturgis, MI

DESCRIPTORS

Overview

In addition to a passing score on a basic skills test (SRA) for graduation, Sturgis also requires its students to acquire a minimum number of credits. Each course that a student takes has a set of teacher-written outcomes attached to it, a subset of which are required for credit to be granted. Once the minimum objectives are met, a variable percentage (at least 50%) of the remaining objectives must be acquired before credit is granted.

Rationale & General Objectives

If success in high school courses builds competence, it makes sense to ensure that each course is structured with an explicit content including high probability for success. Each course a student takes ought to be a building block leading to desired school-leaving outcomes.

Implementation Requirements

High school staff members will need to be able to write useful course outcomes, set reasonable minimums and develop recordkeeping systems that can effectively track student performance. It would also be useful to have each course coordinated with other courses and with the district's school-leaving competencies.

Technical Assistance Contact

Mr. Jack Bittle, Principal
Sturgis High School
216 Vinewood
Sturgis, Michigan 49091

Target Audience

Teachers/administrators.

Materials/Costs

Mimeographed documents outlining Sturgis' course procedures are available at reproduction costs.

Evaluation (Evidence of Effectiveness)

The principal reports improved student performance and favorable student/teacher/community response to the grade/credit/comp program.

Assurances & Claims

N/A

Supplier

Mr. Jack Bittle, Principal
Sturgis High School
216 Vinewood
Sturgis, Michigan 49091

Available on loan from NWREL:

PRODUCT NWEA Item Bank

DEVELOPER Northwest Evaluation Association

DESCRIPTORS

Overview

NWEA provides a bank of assessment items K-8 keyed to the Tri County Course goals. Items are Rasch calibrated, permitting assessment at the student's functional level rather than grade level. Items have been developed in Reading, Mathematics, Language Usage and Social Studies.

Rationale & General Objectives

CBE requires assessment of student performance relative to the school's competencies. Norm-referenced tests usually do not yield appropriate information; commercially available tests seldom fit local scope and sequence of content or local educational objectives. Teacher-made tests have seldom been evaluated for reliability and validity and are expensive to develop. Use of the NWEA Item Bank provides a local district with tests or items tailored to its curriculum and to the functional level of its students.

Implementation Requirements

None.

Technical Assistance Contact

Walt Hathaway, Evaluation Services
Portland Public Schools
501 NE Dixon
Portland, OR 97232

Target Audience

Teachers, Administrators, K-12.

Materials/Costs

See Walt Hathaway papers:
1) A School District Developed Rasch-based to Minimum Competency Achievement Testing (AERA, 1979) 17 pages.

Evaluation (Evidence of Effectiveness)

Items have been field tested for reliability and validity. Items have been put into Portland Public Schools Achievement Level test series and further tested.

Assurances & Claims

Supplier

CBE Program @ 5c per page.

Available on loan from NWREL:

Above paper.

PRODUCT The Schoolcraft Project: A Teacher Developed, Precision Teaching Program

DEVELOPER Dr. Howard Farris
Western Michigan University

DESCRIPTORS

Overview

The Schoolcraft Project, a three year project jointly funded by the Michigan State Department of Education and Schoolcraft Community Schools, was designed to train and assist teachers (grades 2-12) in the development and testing of precise performance based teaching strategies. There is a particular emphasis on the collection of objective data about student performance and its use in the instructional process. Three booklets describing teacher designed and developed instructional improvement projects have been produced. These booklets address three purposes: (1) identify developing areas of educational technology; (2) provide examples of projects in these areas; and, (3) include enough information so that the reader may initiate a similar project.

Rationale & General Objectives

Sustained staff development intervention with emphasis on precision teaching strategies will significantly improve teacher performance and, as a result, improve student performance.

Implementation Requirements

Requires in-house or consultant services that can provide staff development activities in precision teaching methodology. Improving teacher performance also requires competently trained administrators that provide the support structures required for implementation.

Technical Assistance Contact

Dr. Howard Farris
Professor of Psychology
Western Michigan University
Kalamazoo, Michigan 49007

Target Audience

Administrators/Staff Developers/Teachers.

Materials/Costs

Teacher Projects - Booklet 1
Teacher Projects - Booklet 2
Teacher Projects - Booklet 3

Cost undetermined.

Evaluation (Evidence of Effectiveness)

A thorough evaluation of Project effects has been conducted. Results and discussion are available through Dr. Farris.

Assurances & Claims

N/A

Supplier

Dr. Howard Farris
Professor of Psychology
Western Michigan University
Kalamazoo, Michigan 49007

Available on loan from NWREL:

1 copy of the project description.

PRODUCT Program Evaluator's Guide

DEVELOPER California Evaluation Improvement Project, California State Department of Education

DESCRIPTORS

Overview
This Guide describes the steps in planning and carrying out program evaluation. It was written as a study guide and learning tool for inservice training workshops for program evaluators. Separate sections explain how to determine the evaluation purposes and requirements, develop an evaluation plan, determine the evaluation design and do the sampling, select or develop assessment instruments, collect the data, analyze the data, report results and apply findings. A bibliography suggests further reading and appendices provide supplemental information. Numerous forms and illustrations are included in the text.

Rationale & General Objectives
The California Evaluation Improvement Project contends that program evaluation is a means by which a local education agency collects and analyzes information for its own use. Consequently, it has developed a program for giving teachers, principals, curriculum directors or program managers the basic evaluation concepts and skills they can use in making local decisions.

Implementation Requirements

The Guide is self-explanatory. Two related documents are available from Educational Testing Service: Workbook on Program Evaluation and Evaluation Trainer's Guide.

Technical Assistance Contact
Evaluation Improvement Program
Educational Testing Service
Room P-069
Princeton, New Jersey 08540
(609) 921-9000

Target Audience
Local educators - teachers, principals, curriculum directors and program managers.

Materials/Costs

For information, contact Educational Testing Service.

Evaluation (Evidence of Effectiveness)

Educational Testing Service, publishers of the material, is asking users to contribute their formative evaluations so they can be considered in subsequent revisions.

Assurances & Claims
The first edition of this material appeared in 1977.

Supplier
Educational Testing Service.

Available on loan from NWREL:
1 copy of the Guide.

PRODUCT Guided Study Center: Contracting with high school students

DEVELOPER Western Michigan University/
Psych. Department

DESCRIPTORS

Overview

Students in a small school (300 students K-12) in Michigan participate in structured use of their study hall time. Daily contracts are prepared by the Center staff (1 teacher and several aides) directed at remedial, enrichment, or regular assignment activity targets that have been determined by classroom teachers. Center procedures include close monitoring of student in task time and quality of work that is produced.

Rationale & General Objectives

Study hall time, which for many students is off-task time, is better used if methods can be implemented that get students involved in educationally relevant tasks. The Center also gives teachers more flexibility in the use of time. For example, if a student does not finish an assignment or activity in class, further work in the guided Study Center may make the difference between success and failure. The Center helps teachers individualize more effectively.

Implementation Requirements

A teacher or group of teachers with study hall duty will need to be trained in contracting methodology as will a corps of student helpers who act as monitors in the Center. The students often integrate well with student aide programs already in place in many schools.

Technical Assistance Contact

Mr. Bill Redmon, Psych. Department
Western Michigan University
Kalamazoo, Michigan 49007

Target Audience

Study hall teachers, administrators.

Materials/Costs

Dittoed materials are available at cost through the WMU Psych. Department.

Evaluation (Evidence of Effectiveness)

A detailed evaluation over a two year program has shown the effectiveness of the Center along several measures.

Assurances & Claims

N/A

Supplier

Mr. Bill Redmon, Psych. Department
Western Michigan University
Kalamazoo, Michigan 49007

Available on loan from NWREL:

APPENDIX 2

A. DISSEMINATION OVERVIEW

B. PRODUCT DEVELOPMENT & QUALITY CONTROL

C. DISSEMINATION ACTIVITIES

APPENDIX 2 / SECTION A

COMPETENCY BASED EDUCATION PROGRAM
DISSEMINATION WORK COMPONENT
OVERVIEW

Introduction

1. The Context for Dissemination

Dissemination is a major component of the CBE Program's effort to achieve its mission.* It is a particularly challenging work area because of the number and sizes of the audiences to be served, the magnitude of the changes in schooling that are required by the adoption of CBE methods, and the relatively small resource pool committed to getting the job done within the Program. These factors, interacting with each other, produce stringent conditions under which dissemination activities must be designed and carried out.

To meet the challenges, innovative dissemination approaches will be developed and used along with more traditional methods to form a system of strategies that will make the achievement of the component's outcomes possible.

2. Outcomes of the Dissemination Work Component

The dissemination work component has a single major objective. As a result of its activities, the dissemination component will:

- secure the widespread adoption and implementation of CBE methods in the public schools

Because the dissemination component will be involved with the design and use of new dissemination approaches, an additional, though subsidiary objective is to:

- develop new, basic knowledge in the area of effective dissemination methodology

All of the work component's activities will be aimed at achieveing these terminal outcomes. The work of the dissemination component is the last of the steps in the total Program effort to accomplish its mission.

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* For a full specification of the inter-relationships among the Program work components, see the Program document entitled "CBE Program Impact Statement".

Basic Strategy

1. The Change Process

Several important points of view about change underlie the Program dissemination strategy.

- Change is possible. It can be planned and controlled. The quality of education can be improved through systematic intervention methods.
- Organizations change only as the people who make them up change. Restructuring an organization is a matter of changing what people do. It is a behavior change problem. Consequently, the focus for all dissemination activities must be on the individual rather than on organizations or institutions.
- Change is a developmental process. This is so because its basis, behavior change, is developmental. Learning something new is a sequence of events, especially in cases involving complex behaviors.
- Time is a critical element of the change process. It is essential that adequate time be allowed for large scale innovation. (Hall and Loucks, 1978)
- The change process is unique for each individual. People have different histories which must be analyzed and taken into account if the objectives of the change process are to be accomplished. Too often innovations fail, not because the innovations were ineffective, but because people didn't actually use them (they didn't behave appropriately). (Cronbach, 1975)
- Change is best accomplished through a concentration on what members of the target audience do (their behavior), rather than concentrating on and attempting to change their attitudes, values or expectations. Generally, change strategies have supposed that attitudes and values change first and that these, in turn, cause people to behave differently. The evidence suggests, however, that this relationship is reversed. (Bandura, 1969;

Kimble, 1961; Krasner and Ullmann, 1965; Skinner, 1953, 1969, 1971, 1974)

- General behavior change methods are already available and can be usefully adapted to the activites of the dissemination work component. (Bandura, 1969; Sherman, 1973; Luthans and Kreitner, 1975; Miller, 1978; Brethower, 1972)

2. Program Activity Components

CBE Program dissemination activities can be grouped into three domains. These include:

- planning and design operations - activities that include audience analysis, materials and processes development and dissemination pathway location and development
- audience engagement operations - methods and techniques applied to target audiences to engage them with the CBE concept at the awareness level and which build increasing commitment within the audience to the adoption of CBE methods in the schools
- program implementation operations - methods and techniques applied to target audiences that move them from the commitment level to the point where CBE policies and procedures are in place and effectively operating in schools

The relationships among these activity components are displayed in the attached flowchart (Figure 1). This chart shows the sequenced activities and decision events that should result in the effective dissemination of CBE Program products and processes. A detailed procedures manual will be developed to accompany the process flowcharts.

Insert Figure 1

----

3. Target Audiences

The following audiences have been targeted for CBE dissemination efforts. These audiences will be ranked in terms of importance or priority for Program effort. Ranking criteria will include magnitude of influence as a change agent, ease of access by the Program to the audience and a variety of cost factors.

- policy decision makers -- national and state legislators, state and

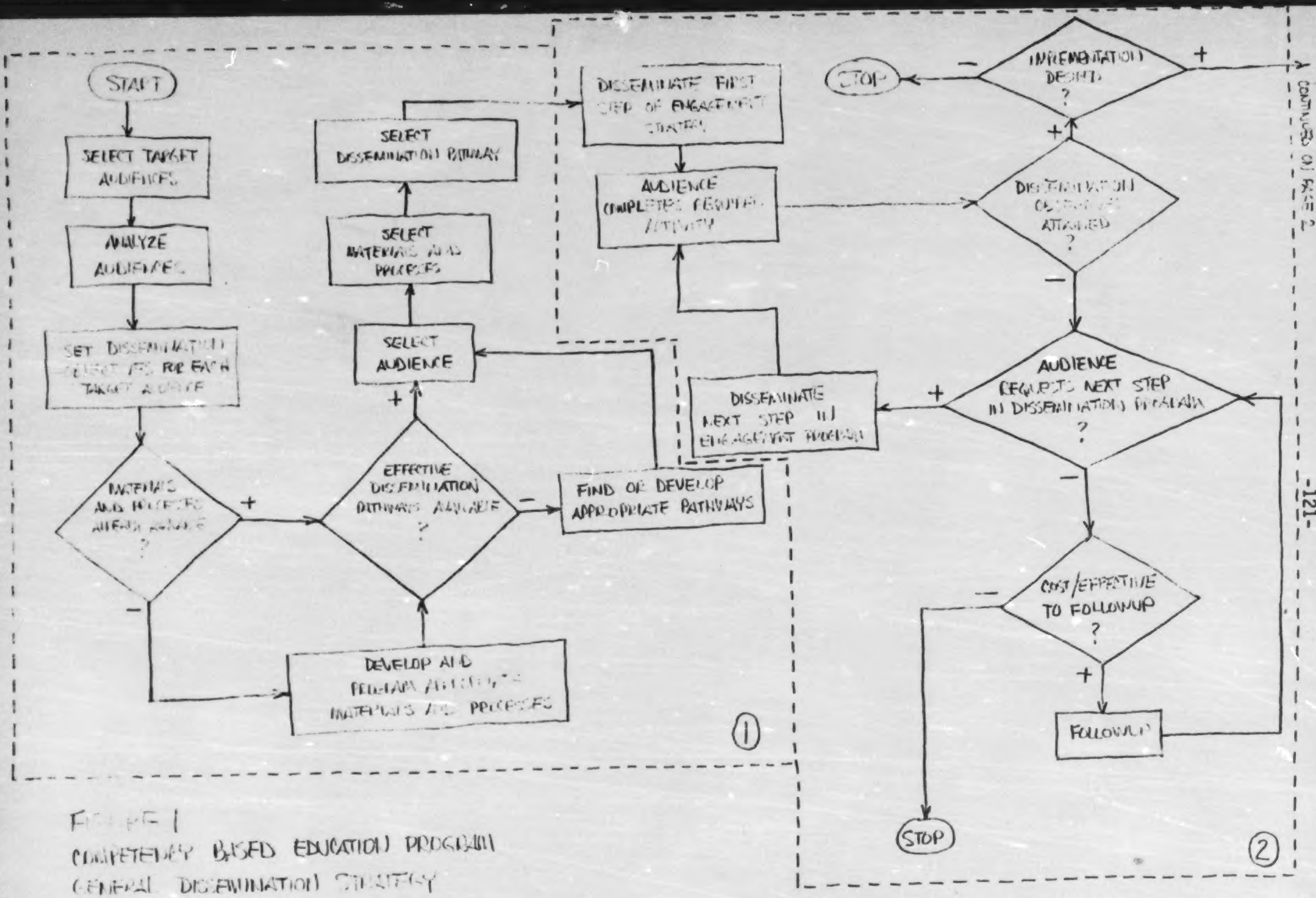
START
SELECT TARGET AUDIENCES
ANALYZE AUDIENCES
SET DISSEMINATION OBJECTIVES FOR EACH TARGET AUDIENCE
MATERIALS AND PROCESSES AVAILABLE ?
+
−
DEVELOP AND PROGRAM APPROPRIATE MATERIALS AND PROCESSES
EFFECTIVE DISSEMINATION PATHWAYS AVAILABLE ?
+
−
FIND OR DEVELOP APPROPRIATE PATHWAYS
SELECT AUDIENCE
SELECT MATERIALS AND PROCESSES
SELECT DISSEMINATION PATHWAY
DISSEMINATE FIRST STEP OF ENGAGEMENT STRATEGY
AUDIENCE COMPLETES REQUIRED ACTIVITY
DISSEMINATE NEXT STEP IN ENGAGEMENT PROGRAM
STOP
IMPLEMENTATION DESIRED ?
−
+
CONTINUED ON PAGE 2
DISSEMINATION OBJECTIVES ATTAINED ?
+
−
AUDIENCE REQUESTS NEXT STEP IN DISSEMINATION PROGRAM ?
+
−
COST/EFFECTIVE TO FOLLOWUP ?
−
+
FOLLOWUP
STOP
①
②

FIGURE 1
COMPETENCY BASED EDUCATION PROGRAM
GENERAL DISSEMINATION STRATEGY
FLOWCHART

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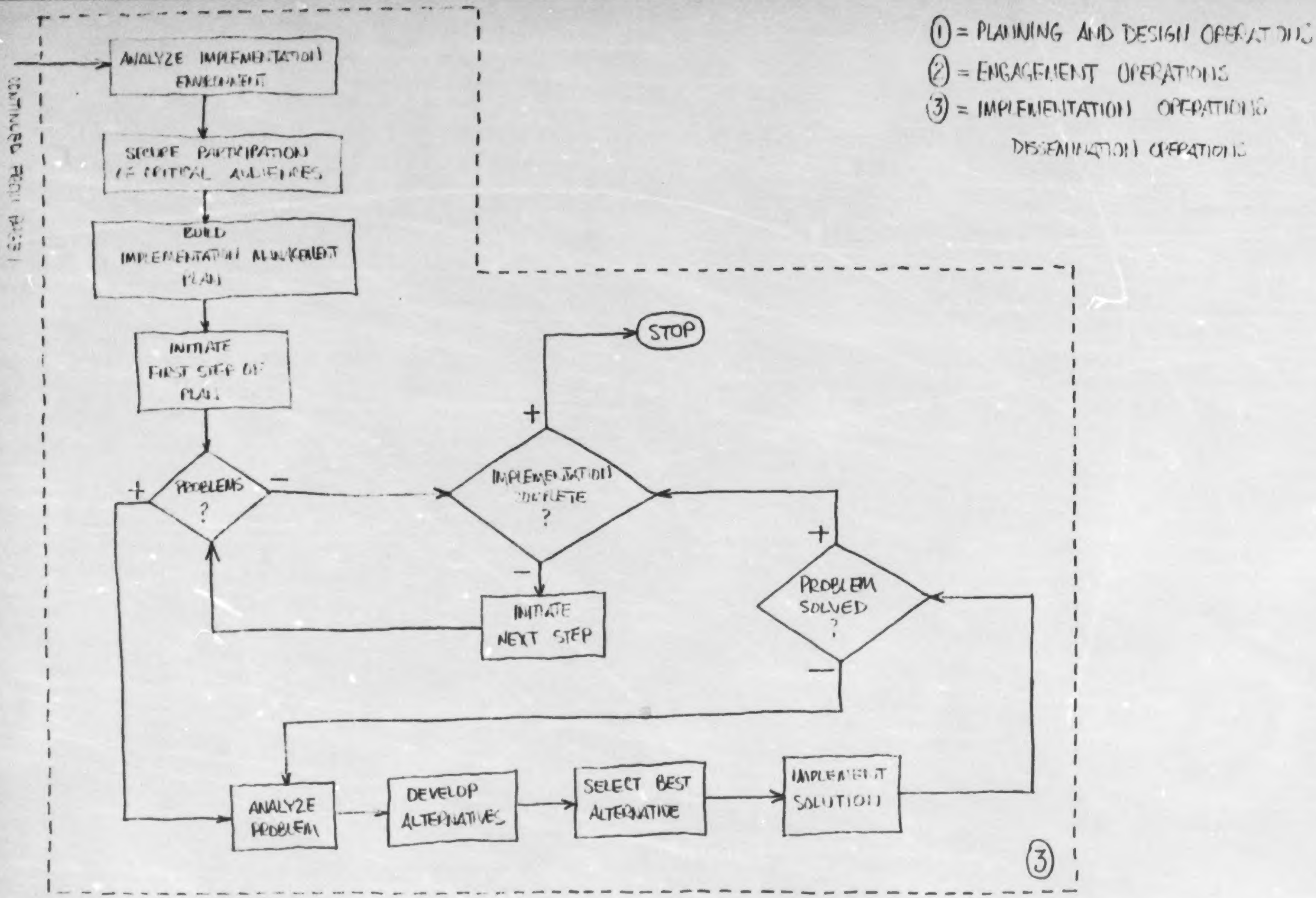
DRAFT I
RMS


① = PLANNING AND DESIGN OPERATIONS
② = ENGAGEMENT OPERATIONS
③ = IMPLEMENTATION OPERATIONS
DISSEMINATION OPERATIONS
CONTINUED FROM PAGE 1
ANALYZE IMPLEMENTATION ENVIRONMENT
SECURE PARTICIPATION OF CRITICAL AUDIENCES
BUILD IMPLEMENTATION MANAGEMENT PLAN
INITIATE FIRST STEP OF PLAN
PROBLEMS ?
+
−
IMPLEMENTATION COMPLETE ?
+
STOP
−
INITIATE NEXT STEP
PROBLEM SOLVED ?
+
−
ANALYZE PROBLEM
DEVELOP ALTERNATIVES
SELECT BEST ALTERNATIVE
IMPLEMENT SOLUTION
③

local school board members

- school district and high school building level administrators
- secondary school teachers

4. Dissemination Pathways

Dissemination agreements and/or procedures have been established which involve the use of the following pathways:

- direct mailings (reactive and proactive)
- CBE Network
- NWREL Marketing
- NWREL Dissemination Rx
- site visits
- technical assistance contracts
- targeted development sites in Oregon
- SEA's in Oregon, Pennsylvania and Georgia

Additional pathways are being explored in terms of their suitability for use. Among these are:

- National Diffusion Network
- professional organizations (educational and others)
- newsletters
- journals and other periodicals
- conference presentations / workshops
- commercial publishers
- community organizations
- newspapers / television / other related media
- dissemination netwroks other than NWREL Rx
- catalogs / clearinghouses

Dissemination Materials and Processes

1. General Design Considerations

Most change provoked by the dissemination work component will be achieved, by necessity, through indirect or remote methods. With its limited resource base, the Program must rely on materials as the primary intervention vehicle rather than on personal contact. This makes the attainment of the dissemination objectives more difficult by eliminating some very powerful intervention tools. Consequently, the approach to the design and development of effective dissemination methods must focus on those modes that are most feasible and must include a commitment to innovation. The margin between success (the attainment of the Program mission) and failure is small.

The following Table displays the relationships among the several elements of the dissemination strategy.

Insert Figure 2
----

2. An Approach to Audience Engagement

How do you get busy people interested in CBE and once you get them interested how do you escalate that interest to the point where people are ready to change what they're doing? And how is all this accomplished through remote or low direct contact dissemination modes? These are the questions with which the engagement strategy must deal.

The first step in answering these questions is an audience analysis. The target audience that have been selected must be carefully examined to determine the characteristics of CBE that are most attractive to them and to determine the presentation modes that will be most effective in engaging them with the idea of competency based education.

Once a detailed profile of the relevant audiences is complete, appropriate materials can be developed. Since there will be little direct contact between Program staff and those in the field, the materials that are developed must stand alone and get the members of the target audiences actively involved with CBE.

Materials used in the early stages of engagement must have characteristics that exert strong stimulus control effects on the individuals who use them. Practically, this means that the materials must be interesting enough to get people to want to investigate CBE further. Methods from the advertising / mass communications industry may be particularly useful, with adaption, for Program materials development work at this stage.

From our dissemination perspective, the process of change, beginning with awareness and culminating with complete implementation, is a continuum

Figure 2

COMPETENCY BASED EDUCATION PROGRAM DISSEMINATION WORK COMPONENT RELATIONSHIPS AMONG ELEMENTS

Operations Domain	Outcomes	Primary Audiences	Anticipated Program Products	Possible Pathways
Engagement	secure attention to CBE and build commitment to its implementation	● policy decision makers ● administrators ● secondary school teachers	● set of audience-appropriate programmed engagement units -- slide/tape -- brochure -- film -- pamphlets ● CBE case studies booklet ● issue paper series on CBE policy dimensions	● see Basic Strategy, part 4
Implementation	develop the procedures needed to operate an effective CBE Program	● administrators ● secondary school teachers ● parents	● program design handbook ● ideabook of CBE promising practices ● implementation handbook ● implementation case studies ● training modules ● change agent training materials	● see Basic Strategy, part 4

of increasing understanding and activity. The engagement portion of this process will be divided into steps, where each step will:

- build on prior steps (be sequential with them)
- require the members of the targeted audience to respond actively in some way
- reward participation, and
- set the stage for the next step in the sequence of involvement.

At first, engagement materials will require little response effort from the participant, will offer frequent reinforcement and will present steps that are small (of short duration). As the participant moves further along the continuum of engagement events, more response effort will be required for longer periods of time with a decrease in reinforcement frequency and strength (although natural reinforcers associated with the engagement activities will begin to gain control of the behavior of the participant making contrived external reinforcement less necessary).

This kind of stepped programming builds "commitment" to the CBE concept. Operationally speaking, commitment has been attained through engagement strategies when members of the target audience express a desire to see CBE methods implemented in their school or schools.

3. An Approach to Implementation

When commitment to change is made, what happens next? How is support for change developed and how is change managed? These are the questions with which the implementation strategy must deal.

The key to the implementation of any new innovation which involves changes in human performance lies in a simple statement.

- When the consequences of doing things in new ways are more rewarding than the consequences attached to the maintenance of the status quo, change will occur.

Remember, our position is that the focus of the change process is on the behavior of individuals rather than on the structure of organizations or institutions. Changing what teachers, administrators, parents and students do is a learning process, and a critical part of the process is the organization of the work environment so that positive consequences consistently follow the performance of desired new behaviors. When no differential consequences are applied, change will not occur.

So, for CBE to become a reality in schools, target audiences must:

- enter the implementation process with "commitment" (this means that the proposed change must exert positive stimulus control over the members of the target audience -- this is the objective of the engagement strategy)
- know what to do, how to do it (that is, the members of the audience must have learned any new behaviors that are required of them) and know when it is to be done, and
- receive differential consequences according to the appropriateness of their performances.

If all of these elements are present in an implementation plan, the probability of success is greatly increased.

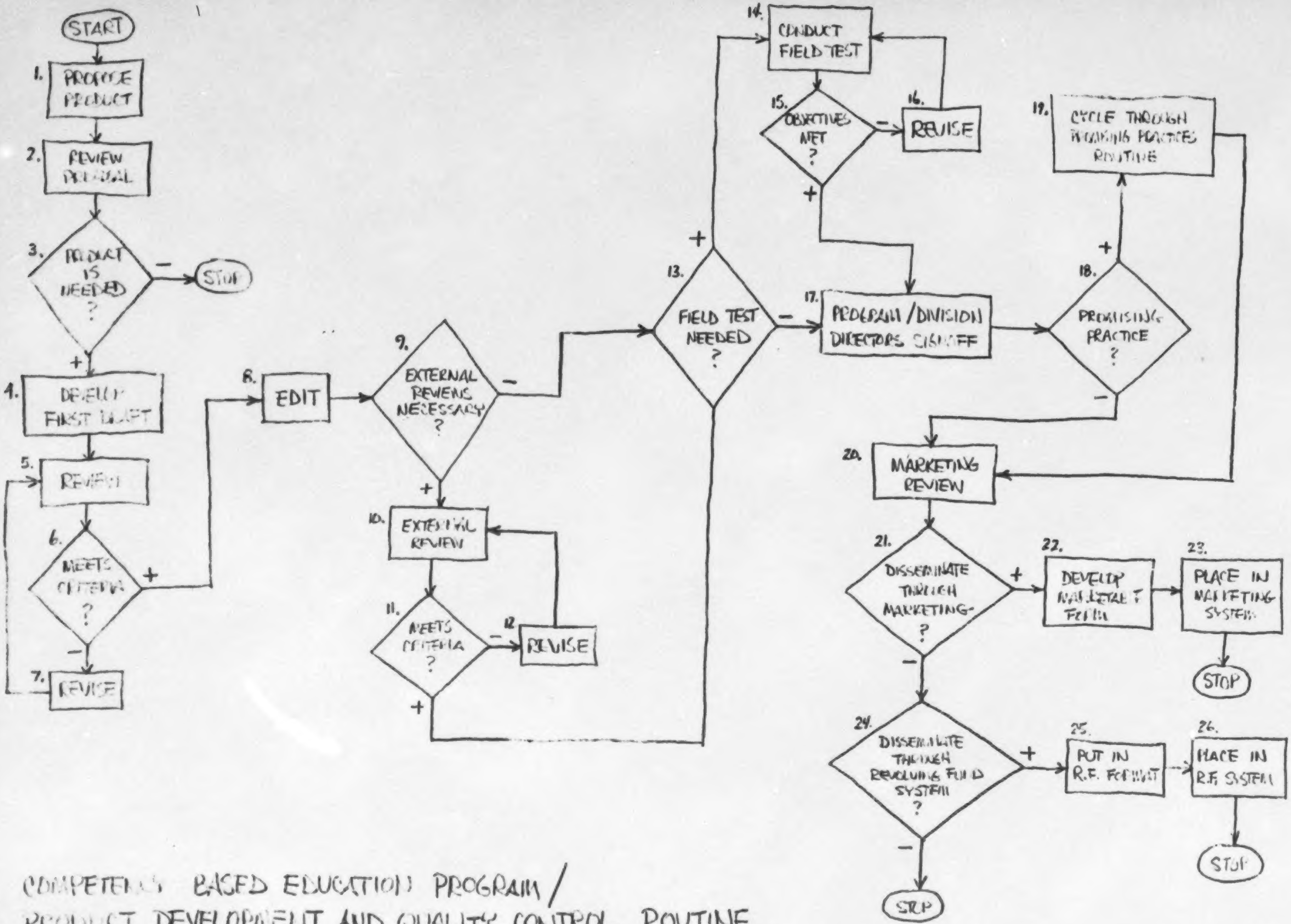
Since the Program can not possibly provide direct technical assistance to all schools wishing to implement CBE methods, developed materials will, once again,have to stand the burden of getting the implementation job done. One possible supplement to the "materials alone" approach would be a Program-delivered change agent training seminar. Typically, one person in a school is assigned primary responsibility for implementing an innovation once a policy commitment to it has emerged. If the CBE Program were able to provide these people with specific training in the implementation process, the probability of success would be further increased.

We in the CBE Program believe that the combination of analysis, engagement and implementation strategies that have been outlined here will make it possible for the Program to achieve its mission -- to improve the quality of education in the public schools of America.

APPENDIX 2/ SECTION B

COMPETENCY BASED EDUCATION PROGRAM
PRODUCT DEVELOPMENT AND QUALITY CONTROL ROUTINE

FLOWCHART AND PROCEDURES MANUAL


START
1. PROPOSE PRODUCT
2. REVIEW PROPOSAL
3. PRODUCT IS NEEDED ?
−
STOP
+
4. DEVELOP FIRST DRAFT
5. REVIEW
6. MEETS CRITERIA ?
+
−
7. REVISE
8. EDIT
9. EXTERNAL REVIEWS NECESSARY ?
−
+
10. EXTERNAL REVIEW
11. MEETS CRITERIA ?
−
12 REVISE
+
13. FIELD TEST NEEDED ?
+
−
14. CONDUCT FIELD TEST
15. OBJECTIVES MET ?
−
16. REVISE
+
17. PROGRAM/DIVISION DIRECTORS SIGNOFF
18. PROMISING PRACTICE ?
+
−
19. CYCLE THROUGH PROMISING PRACTICES ROUTINE
20. MARKETING REVIEW
21. DISSEMINATE THROUGH MARKETING ?
+
−
22. DEVELOP MARKETABLE FORM
23. PLACE IN MARKETING SYSTEM
STOP
24. DISSEMINATE THROUGH REVOLVING FUND SYSTEM ?
+
−
25. PUT IN R.F. FORMAT
26. PLACE IN R.F. SYSTEM
STOP
STOP

COMPETENCY BASED EDUCATION PROGRAM /
PRODUCT DEVELOPMENT AND QUALITY CONTROL ROUTINE

COMPETENCY BASED EDUCATION PROGRAM
PRODUCT DEVELOPMENT AND QUALITY CONTROL ROUTINE

PROCEDURES

1. Propose Product

The nature,sequence and rate of production of Program developed products will be determined by an analysis of the Program Impact Statement. The analysis of this document will include a review of Program objectives, task areas and activities designed to meet the objectives, target audiences, timelines and resource allocations. From this analysis, generalized product types will be specified in each Program task area. Since these task areas are broadly sequential, large scale priorities for development will be established automatically. (Unusually large projects may require some deviation from the expected sequencing pattern.)

Within a task area, priorities for product development will be established by the CBE Program staff. The net result of these activities will be a sequenced list of Program products to be developed. This list will be reviewed by and must have the approval of the Division Director.

Individual product proposals must draw their justification from the list of anticipated products or from the Program Impact Statement. An individual or development team may present a proposal. Proposals will include:

- the task area being addressed
- the target audience
- a general content outline
- the predicted number of person-days to complete the product
- a projected timeline with benchmarks, if appropriate

2. Review Proposal

Product proposals will be distributed to all CBE staff members, the Program Director and the Division Director. The standard*evaluation response form will be attached to the proposal. A staff meeting to review the proposal will be called within 72 hours of distribution. All CBE staff members will attend, excluding those with field assignments. The Division Director may attend at his discretion. He will submit the proposal evaluation with any comments prior to the meeting if he elects not to attend.

3. Product Is Needed?

During the staff meeting, questions are answered regarding the proposal. Consensus must be obtained before product development will be permitted. If consensus is established, development tasks will be assigned by the individual in charge of the project (the individual involved or the team leader).

4. Develop First Draft

If the product PROPOSAL is approved for development, any required research will be completed and a first draft will be written. This draft copy will be dated with its completion date, will specify the target audience, will classify the product in the context

* sample form is attached (ATTACHMENT I)

of the Program Impact Statement, and will bear the name of the primary author or authors.

5. Review

First draft copies will be distibuted to:
- all CBE staff members
- Program Director
- Division Director

Along with the draft copy of the product, review criteria and a standardized response sheet will be attached. The response sheet will specify the date that reviewer responses are due. Completed response sheets will be returned to the product developer or team leader and will be dated and initialed by the reviewer.

When all response sheets have been returned, a staff meeting will be called to discuss issues and achieve consensus with respect to the product review criteria.

6. Meets Criteria?

The general review criteria include:
- audience appropriateness
- content validity

Each reviewer will make specific responses to in these categories. Revision suggestions should be concrete to assist the developer(s) in rewrites.

Each reviewer will make a next step response to the product using the standard response form discussed earlier.

7. Revise

Following the staff meeting, the developer or development team revises the product on the basis of the distilled reviews. The review/revision procedure is repeated until all first level reviewers rate the product as acceptable (go).

8. Edit

In this step the product is technically revised to produce maximum effect on audience (through uniformity of style and vocabulary as an example) and to attain letter perfect copy.

9. External Reviews Necessary?

The following participate in this decision:
- CBE staff
- CBE Program Director
- Division Director

CBE staff consensus will require external review. Program Director / Division Director may require review at their discretion. The decision for external review should be made at the staff meeting during which final approval of product first draft is attained.

10. External Review

Possible external review audiences include:
- CBE Network members
- specialists in product content areas

- target audience samples

Each external reviewer will receive a copy of the product, the review criteria, the response timeline, and the standard evaluation response form.

11. Meets Criteria?

Routine decision criteria for external reviewers will include:

- content validity
- audience appropriateness
- utility to target audience

Additional criteria may be specified by the developer. Reviewers critique and rate product and return review sheet and standard evaluaiton response form to developer.

12. Revise

Developer revises on the basis of external reviews. Review/revision procedure is repeated until majority of external reviewers give acceptable (go) response. The Program will provide feedback to reviewers as to actions taken with respect to the product. The product developer or development team will be responsible for conducting the external review and follow-up.

13. Field Test Needed?

Participants in this decision include:

- CBE staff
- CBE Program Director
- Division Director
- External Reviewers, if Step 9 is positive

If the product involves major Program effort, or if it prescribes a process of unknown effectiveness, or presents significant untested hypotheses, a field test may be required. Since field testing requires substantial effort and resource commitment, few program products will cycle through the total test cycle.

14. Conduct Field Test

Specific field test procedures will be detailed at a later time.

15. Objectives Met?

Effectiveness criteria will be applied to the product and an evaluative judgement made.

16. Revise

If the product is judged ineffective, revision and re-testing will occur until effectiveness is demonstrated.

17. Program / Division Directors Signoff

Revised product is approved by Program and Division Directors. Each signs and dates draft labelled "Final Approved Draft".

18. Promising Practice?

The final draft will be screened through the promising practices criteria. The CBE staff member with primary responsibility for promising practices will carry out this step.

19. Cycle Through Promising Practices Routine

If the product is judged a promising practice, it is run through the promising practices routine as detailed elsewhere.

20. Marketing Review

Approved final drafts will be routed to Marketing for review.

21. Disseminate Through Marketing?

Marketing criteria will be applied to the product.

22. Develop Marketable Form

If Marketing determines that the product is marketable, Marketing staff members and CBE staff members work jointly to put the product into a marketable form.

23. Place in Marketing System

Final product will be disseminated through Marketing strategy.

*24. Disseminate Through Revolving Fund System?

If Marketing determines that product can not be handled through normal Marketing channels, product is reviewed for inclusion in Revolving Fund System.

25. Put in Revolving Fund Format

If screened into the Revolving Fund System, the product will be put into standardized format. Developer is responsible for such format revision.

26. Place in Revolving Fund System

Final product will be disseminated through Revolving Fund System strategy.

*Alternative strategy to Revolving Fund System is discussed in Attachment 2.

Attachment 2

ALTERNATIVE TO REVOLVING FUND STRATEGY

Until such time as a Revolving Fund System exists in the Lab, products routed into Decision Block 24 will be handled within the CBE Program. A standard format will be developed for these products. They will then be available for dissemination at user request on a cost of reproduction basis.

The CBE staff member with primary responsibility for dissemination will be responsible for coordinating this activity and establishing the necessary procedures. The Program secretary will be responsible duplicating products, financial transactions and recordkeeping, mailing out cover letters and products, and filing correspondence related to this activity. All requests will be responded to within five working days of receipt of user request accompanied by correct and suitable payment.

An annotated bibliography of Program products and ordering procedures will be produced and disseminated proactively.

This dissemination method will remain acceptable until such time as the demand for products exceeds a work load equal to .2 FTE. When this time requirement is exceeded, addtional help will be required to maintain the activity on schedule.

APPENDIX 2 / SECTION C DISSEMINATION ACTIVITIES

CATEGORY	PRODUCT TYPE	# DISTRIBUTED
Initial Engagement Materials	brochure	2500
	slide/tape	17 presentations
	one page handouts	800+
Issue Papers	theoretical focus	95
	technological focus	350+
Training Modules	training modules	200
Technical Assistance Contracts	implementation assistance	see attached annotated list
Marketed Products	books	

APPENDIX 2 / SECTION C (continued)

SPREAD OF DISSEMINATION ACTIVITIES

In the past 18 months, the Program has disseminated materials and processes on regional, national and international scales.

- regional - With Program roots in the Oregon CBE experience, we continue to monitor developments here with particular interest. The Program provides assistance to the State Department of Education, local districts and, on occasion, to individual teachers or administrators who contact us directly.

  We also have disseminated information and provided technical assistance to educational agencies in other states of our region.

- national - The Program has close ties with the State Departments of Education in Pennsylvania and Georgia. More informal relationships exist with other state departments (e.g., Michigan). We have responded to requests from a variety of agencies spread across the nation from coast to coast.

  Communications networks have been developed and are maintained with other R&D institutions that have programs with a focus similar to our own. For instance, Program staff recently met with representatives of the Wisconsin R&D Center and the Merrimack Education Center in Massachusetts.

- international - Occasionally, the Program responds to requests from educational agencies in foreign countries. Program staff members have conferred with university professors from Australia and with an education minister from Morocco, to cite two examples.

APPENDIX 2 / SECTION C (continued)

TECHNICAL ASSISTANCE CONTRACTS - July 78 through November 79

Third Quarter - 1978

Riverton, Wyoming: Provided technical assistance in developing a CBE implementation plan.

First Quarter - 1979

Delta/Greely Schools REAA, Delta Junction, Alaska: Provided one-day workshop as an introduction to CBE for K-12 staff. Filled four requests from staff for additional materials on CBE.

Galena City Schools, Galena, Alaska: Conducted a three-day workshop on refining their CBE system implemented two years ago. Conducted problem-solving sessions on community involvement, elementary recordkeeping, competencies/credits/grading policies and teaching strategies. Revised planned course statements as needed.

Second Quarter - 1979

Valdez City Schools, Valdez, Alaska

- Conducted a 1/2 day orientation to CBE with the K-12 staff.
- Conducted two 2-day workshops (K-6 staff and 7-12 staff) to map laterally current Valdez competencies by grade level and course.
- Surveyed currently-used teaching strategies and those that teachers would like to know more about.
- Reproduced copies of the lateral map.
- Produced a lateral map of a representative sample curriculum and vertical maps of a representative sample in reading, language arts, math, science and social studies.
- Prepared an item analysis/content audit of the standardized tests used in Valdez against their lateral competency map.

- Conducted a two-day work session with a staff committee to compare the Valdez competencies with the vertical map, to edit and revise the Valdez lateral map using the representative sample and test audit, and to develop specifications for staff development.
- Conducted a one-day workshop with K-12 staff to produce final edited copy of Valdez competencies.

Georgia: Conducted 16 workshops for the Georgia State Department of Education for 250 local district associate superintendents, curriculum directors and principals on staff development for CBE. Workshop topics were: Motivating Students, Individualizing Instruction, Teaching/Learning Styles, and Assessment Techniques Beyond Multiple Choice Items. Gave copies of staff development training modules to all participants.

Third Quarter - 1979

Galena, Alaska: Rewrote curriculum based on teacher review of earlier product.

Fourth Quarter - 1979

Concordia College, Portland, Oregon: Provided technical assistance to education school faculty in generating student competencies, developing planned course statements, and developing an audit trail for tracking competency achievement through the instructional program.

ADDENDUM
To The
FINAL REPORT

COMPETENCY BASED EDUCATION PROGRAM
NORTHWEST REGIONAL EDUCATIONAL LABORATORY

For The Period
June 1, 1978 - November 30, 1979

COMPETENCY BASED EDUCATION PROGRAM
ROBERT N. GOURLEY,
DIRECTOR

EA 013 395
pt. 2

MARCH 1980

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Attachment A: Network Minutes

INTRODUCTION

This addendum augments the information included in the Final Report for the Grant Period June 1, 1978 - November 30, 1979 for the Competency Based Education Program, Northwest Regional Educational Laboratory, Portland, Oregon.

It includes:

- information on the activities of the CBE Network Advisory Group;
- further detail on the Program's promising practices activities, Table I, pages 8 and 9 of the Final Report; and
- further detail for the evaluation report, Section 6 of the Final Report, pages 50-52.

ACTIVITIES OF THE CBE NETWORK ADVISORY GROUP

The CBE Network Advisory Group met on three occasions during the grant period:

September 25-27, 1978;

June 14-16, 1979; and

November 27-29, 1979.

Minutes of the September, 1978 and June 1979 meetings are included as Attachment A. Minutes of the November, 1979 meeting (originally scheduled for December, 1979) have been attached to the first quarterly report for the new contract period.

The CBE Network:

- advises on Program plans and products,
- critiques draft products for usefulness in the field, and
- serves as a dissemination resource for Program products and services.

SUPPLEMENT TO SECTION 2: PROMISING PRACTICES

- Our updated classification scheme for promising practices is displayed in Table 1, pages 8 and 9 of the Final Report.
- The original version of the classification scheme is displayed on the following two pages.

CBE PLANNING MATRIX

8/15/78
R. Gourley

	STUDENT ISSUES/MATERIALS	TEACHER ISSUES/MATERIALS	MANAGEMENT ISSUES/MATERIALS	COMMUNITY ISSUES/MATERIALS
INDIVIDUALIZED INSTRUCTION	Paper: What are some of the theoretical and practical issues associated with planning and implementing an individualized CBE Program?			
	Materials: (e.g.) A self-paced learning program in consumer education.	Materials: (e.g.) Alternative strategies for individualized instruction with step-by-step suggestions.	Materials: (e.g.) A guide to managing an individualized CBE program.	Materials: (e.g.) A guide to using the community as a teaching/learning resource.
LESS TIME DEPENDENCY	Paper: What are some of the theoretical and practical issues associated with planning and implementing a CBE Program which has less time dependency?			
	Materials: (e.g.) 1) Criteria for assessing time dependency of high school course offerings. 2) Flexing the schedule in the student's favor.	Materials: (e.g.) An adaptation of the Mariner H.S. critical path program.	Materials: (e.g.) A guide for loosening up the system without losing the students.	Materials: (e.g.) Involving the community in creating a less time-dependent high school business education program.
ADAPTIVE PROGRAMS	Paper: What are some of the theoretical and practical issues associated with planning and implementing an adaptive CBE Program?			
	Materials: (e.g.) Adapting mathematics instruction to meet individual learners' needs.	Materials: (e.g.) Guidelines for analyzing instruction in terms of student outcomes.	Materials: (e.g.) A guide to using effectiveness data in program adaptation	Materials: (e.g.) A handbook on citizen involvement in setting desired instructional program outcomes.

CBE PLANNING MATRIX

	STUDENT ISSUES/MATERIALS	TEACHER ISSUES/MATERIALS	MANAGEMENT ISSUES/MATERIALS	COMMUNITY ISSUES/MATERIALS
INTEGRATED PROGRAMS	Paper: What are some of the theoretical and practical issues associated with planning and implementing an integrated CBE Program?			
	Materials: (e.g.) Keying student outcomes to life role applications across disciplines.	Materials: (e.g.) An integrated approach to teaching competencies in the fine arts.	Materials: (e.g.) Managing integrated programs: All for one and one for all.	Materials: (e.g.) A note to the patrons of public education: What integrated instructional programming can mean to students.
LIFE ROLE OUTCOMES	Paper: What are some of the theoretical and practical issues associated with planning and implementing a CBE Program which focuses on life role outcomes?			
	Materials: (e.g.) CBE = relevant learning.	Materials: (e.g.) A teacher's manual on identifying & using life role-focused student outcomes.	Materials: (e.g.) Managing life role-focused instructional programs.	Materials: (e.g.) A guide for reporting student competency achievement to parents & other community representatives.
PUBLICLY DETERMINED/ DISPLAYED OUTCOMES	Paper: What are some of the theoretical and practical issues associated with planning and implementing a CBE Program which has publicly determined & displayed outcomes?			
	Materials: (e.g.) What should a high school diploma guarantee?	Materials: (e.g.) Teachers' guide to talking and listening to persons in the community.	Materials: (e.g.) A system for airing & resolving issues on what students should learn.	Materials: (e.g.) Hearing the sound, not the noise: working with the community to determine student outcomes.

SUPPLEMENT TO SECTION 6: EVALUATION REPORT

This supplement includes:

Page

- revised evaluation findings for select evaluation objectives 7
- revised summary of findings 9

- new appendices: E, F, and G

EVALUATION MATRIX (SUPPLEMENT)

OBJECTIVE	SUPPLEMENTARY EVALUATION FINDINGS
1.1.2 (page 50)	Seven criteria for CBE programs appear on page 6 of this report. The four criteria employed in the screening of potential CBE promising practices appear on page 7 of this report. These criteria are still applicable.
1.1.3 (page 50)	The classification document, pages 8 and 9 of this report, was refined during FY 79 to focus more sharply on subgroups of practice and practitioners. The original scheme used for classifying promising practices was the CBE Planning Matrix (August 15, 1978) which appears on the next two pages. That scheme proved too awkward and redundant for classifying promising practices. It was refined by the CBE staff and the CBE Network by means of a series of drafts, discussions and revisions. Feedback from practitioners also helped with the revisions. The refined classification scheme relates more directly to the practitioner's world than the original scheme.
1.1.4 (page 51)	There is documented evidence that screening criteria have been applied to candidate promising practices; the evaluator examined the retention/rejection lists. The list of ten rejections appears on the next page. Most frequent rejections were on the basis of lack of transportability of practices because descriptions were inadequate for adopters/adapters to use. The list of promising practices retained is in Table 1, pages 8 and 9, of this report. Screening was performed by CBE staff members whose qualifications include indepth training and experience in curriculum and practice. Assistance in the screening was provided by RDx staff members who are sensitive by reason of their training and experience to the needs of users of materials related to innovative programs.
1.1.6 (page 51)	Screened, classified abstracts are being placed in RDx and sent to the CBE Network. RDx lists the abstracts in their catalog and actively disseminates the catalog. RDx answers borrowers' requests promptly. RDx members and users discuss CBE products in their regional meetings. RDx routinely collects user data with respect to dissemination of materials in its depository.
1.1.7 (page 51)	(1) Classification of promising practices focused more sharply on subgroups of practice in FY 79 than in FY 78. There is still need, however, to relate the nature of the collection to the characteristics of specific subgroups of practice. (2) It was learned that implementation detail is essential for promising practices so transportability can be enhanced. CBE is seeking more "process paper" descriptions of promising practices (see Appendix E, Section 6). These descriptions are superior to mere abstracts (see Appendix F, Section 6) or lengthy content-oriented curriculum guides (see Appendix G, Section 6) for example of cover and table of contents.

OBJECTIVE	SUPPLEMENTARY EVALUATION FINDINGS
1.1.7 (continued)	(3) It was also learned that collection of promising practices should focus tightly on a limited number of areas - outcomes, measures, instructional practices and community involvement. The list of promising practices retained (pages 8 and 9 of this report) reflect these focii. (4) Practitioners accept most readily those descriptions of promising practices that address identified problems. In the future, screening criteria should include determining whether there appears to be substantial sentiment among the educational community that a problem exists which the candidate promising practice addresses. (5) At this point in time, evidence of change atrributable to CBE promising practices is limited to processes and products. There is no evidence of changes in behavior of teachers or students.

REJECTIONS

1. Professional Growth Plan for Jefferson County Educational Office Personnel, Lakewood, Colorado
2. Materials Related to CBE, Craig City Schools, Alaska
3. Toward Competency--A Guide for Individualized Instruction, Oregon Department of Education
4. Education for the People--A Handbook for Determining School Effectiveness, California State Dept. of Education
5. Competency Based Consumer Education in Home Economics, Home Economics Department, Eastern Michigan University, Ypsilanti, Michigan
6. How to Write Behavioral Objectives and Still Teach Creatively, John A. McCollum, L.R. Publishers, Ashland, Oregon
7. Community Resource Guide--School District of Lancaster, Lancaster, Pennsylvania
8. Oregon Competency Based Education Program Conference on the State-of-the-Art in CBE, NWREL
9. Clackamas Elementary Scope and Sequence, North Clackamas School District, Milwaukie, Oregon
10. Vocational Curriculum Materials Catalogue, Northwestern Region

IV. SUMMARY OF FINDINGS

Promising Practices

The operational definition of promising practices is still emerging. The current definition is derived from the selection criteria: "A promising practice is currently or has been recently in use by a school district, there is evidence that it works, it fits into the conceptual framework of CBE and it is transportable."

There may be a need to relate the nature of the collection of promising practices to the characteristics of specific subgroups of practice, depending upon the nature of the practices identified.

Practices qualifying for the CBE promising practices collection must meet seven criteria that characterize them as CBE practices (page 6 of this report) and four screening criteria (page 7 of this report). The evaluator suggests that a fifth screening criterion be added: "That it has been determined that there appears to be substantial sentiment among the educational community that a problem exists which the candidate promising practice addresses."

The scheme for classifying promising practices has been refined to relate more directly to the practitioner's world.

The lists of promising practices rejected and retained reflect careful application of the CBE and screening criteria. Most frequent rejections were on the basis of the descriptions being apparently inadequate for adopters and adapters to use.

Dissemination of abstracts of CBE promising practices is being accomplished through RDx and the CBE Network.

CBE has learned that the best descriptions of promising practices from the practitioner's standpoint are in a "process paper" format that have great implementation detail and focus tightly on outcomes, measures, instructional practices and/or community involvement.

Targeted Development

The CBE pioneer sites are truly innovators of CBE programs, as indicated by responses on the Hall questionnaire on Levels of Use of Competency Based Education. Analysis of site representatives' responses indicate some level of use of one or more of the "critical pieces" of CBE while only 11 responses indicate no current use of any of the pieces.

FY 79 targeted development activity was generally concerned first with finishing activities begun or planned in FY 78, second with responding to specific new requests by pioneer site personnel and third with planning new work at the sites for FY 80.

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Personal interviews conducted by the evaluator with pioneer site personnel revealed that teachers and administrators held common expectations for technical and motivational help from CBE staff, but individuals differed in their expectations as to the help that would be delivered. Some thought there would be a mutual, interactive approach. Others expected CBE would bring the help all written up and packaged and ready to use. The importance of clarifying roles of the actors in any field-based, research and development enterprise is reaffirmed in the interview responses.

An equal number (8) of strengths and weaknesses of CBE's technical assistance was cited by the interviewees. The strengths mentioned most often were the responsiveness of CBE staff to requests for help and the expertise with which the responses were made. Weaknesses centered around failure to find useful recordkeeping systems and uncertainty as to how CBE/site interaction would and should take place.

All but one of the interview respondents cited specific uses being made of the results of CBE technical assistance.

Nine lessons learned in FY 78 with respect to targeted development are listed in Section III of this report. There are evidences, cited in the Evaluation Matrix in Section III, that five of the nine lessons learned have been addressed and positive changes have been made in program direction and activities. Four have not been addressed and the evaluator makes specific suggestions in Section III in that regard.

Dissemination

Questionnaires returned to the evaluator from users of CBE technical assistance, other than at the pioneer sites, note the assistance excellent (4 responses) or very good (1). All five respondents reported specific uses being made of the results of the assistance. CBE apparently still needs to work toward proactive idea exchange aimed at a variety of practitioners as the focus of its dissemination efforts.

SECTION 6, APPENDIX E

LOCAL CURRICULUM DEVELOPMENT FOR COMPETENCY BASED EDUCATION

PROGRAM PRODUCT FOR REVIEW

Target Audience: secondary teachers, department chairpeople, curriculum coordinators

Presentation Mode: occasional paper

Program Task Area: targeted development

Product Purpose: to describe a process for CBE curriculum development at the local level

Review Criteria:
1) content validity
2) transportability
3) audience engagement

Your Review Notes:

Appendix F

LOCAL CURRICULUM DEVELOPMENT
FOR
COMPETENCY BASED EDUCATION

AUGUST 1979

David Cox
Science Department Coordinator
Rex Putnam High School
Milwaukie, Oregon

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Competency Based Education Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204
(503) 248-6886

FOREWORD

The Competency Based Education Program of the Northwest Regional Educational Laboratory is funded by the National Institute of Education to develop and/or collect and disseminate educational practices that facilitate the development and implementation of systems of competency based education at the secondary level. Toward this end, the program staff works directly with teachers and administrators at some school sites, as well as investigating activities in other schools which seem to hold promise for competency based education.

The unified science program at Rex Putnam High School is in the latter category. While the CBE Program has not been involved in the development of this unified science course which uses a CBE system, staff members have reviewed the system, processes and materials developed by the science department at Putnam and found them to be exemplary. High school teachers and administrators, department chairpersons and district-level administrators with responsibility for curriculum development and improvement should find Dave Cox's description of the Putnam process a practical, helpful guide in planning their own curriculum development efforts and in examining how a departmental CBE system might operate. While the content area of this effort is science, the CBE staff believes that the processes described here are generic and can be used with any secondary discipline.

The Competency Based Education Program commends Dave Cox and the Rex Putnam science department staff for their excellent effort in developing, implementing and evaluating an innovative secondary CBE program.

Draft
8/15/79

Competency based education - boon or bane? Something to strengthen and revitalize school programs or something that gets in the way of meaningful education? A mechanism that will lower the overall quality of programs or a means of upgrading learning experiences for everyone? Within the science department at Rex Putnam High School in Milwaukie, Oregon, CBE has been like a breath of fresh air! If you would like to find out about a competency based science curriculum development project that has contributed to higher quality and more satisfying learning experiences for all youngsters, reduced the number of failures in the required science course, increased elective enrollments in science, and increased science staff morale, please read on. We're very proud of what we have done and would like to share some highlights of the process with you. And best of all, competency based curriculum improvement projects like ours are within every school's existing capacity to implement.

A FEW GENERAL COMMENTS

One of the most common misconceptions concerning competency based programs is that they are automatically geared to strive for only a minimum level of achievement. On the contrary, we have found that our competency based approach enhances the likelihood that all learners will achieve at the minimum acceptable level, and at the same time provides expanded opportunities for the vast majority of the students to achieve well above the minimum. Stated more directly, we view each competency area (e.g., science process skills such as *observing* and *classifying* or science concepts such as *energy* and *model*) as existing on a continuum. Each learner arrives in our school somewhere along that continuum, and it is the goal of our instructional program to provide opportunities for continuous progress. We do not allow students to "test out" at a minimum level; no matter how much they know or how highly developed their skills, they can always learn more and develop increased proficiency.

We believe that a program that allows students to test out of a competency area would in fact be a program designed to encourage minimum levels of knowledge and skill development as its goal. If an area is important enough to be selected for minimum competency attention in science, then it is an area worthy of extended study.

Our competency based science course uses a unified science philosophy. Unified science education is a tested approach to organizing science learning experiences that emphasizes the development of skills and concepts with broad applicability across the various science disciplines. It therefore provides an excellent preparation for any later science instruction and at the same time creates learning of great personal usefulness for those students who will not elect to formally study science beyond the required level.

In order to enhance both lateral (across disciplines and outside the classroom into the "real" world) and vertical (from one science course to another) transfer of learning, we attempt to provide multiple learning experiences in multiple science contexts within each of our instructional units. This is consistent with the theories of contemporary learning psychologists such as Robert Gagné (1), the unified science approach, and the philosophy of our science staff.

And perhaps as significant as our philosophical commitment, a competency based curriculum improvement project may not involve any funds beyond those committed for a new textbook adoption. It is our estimate at Rex Putnam that the cost of the two alternative approaches, textbook adoption versus local competency based curriculum development, are equivalent. The benefits accompanying the competency based approach appear to far outweigh any we have previously experienced with textbook adoptions.

Our process for local curriculum development follows this model:

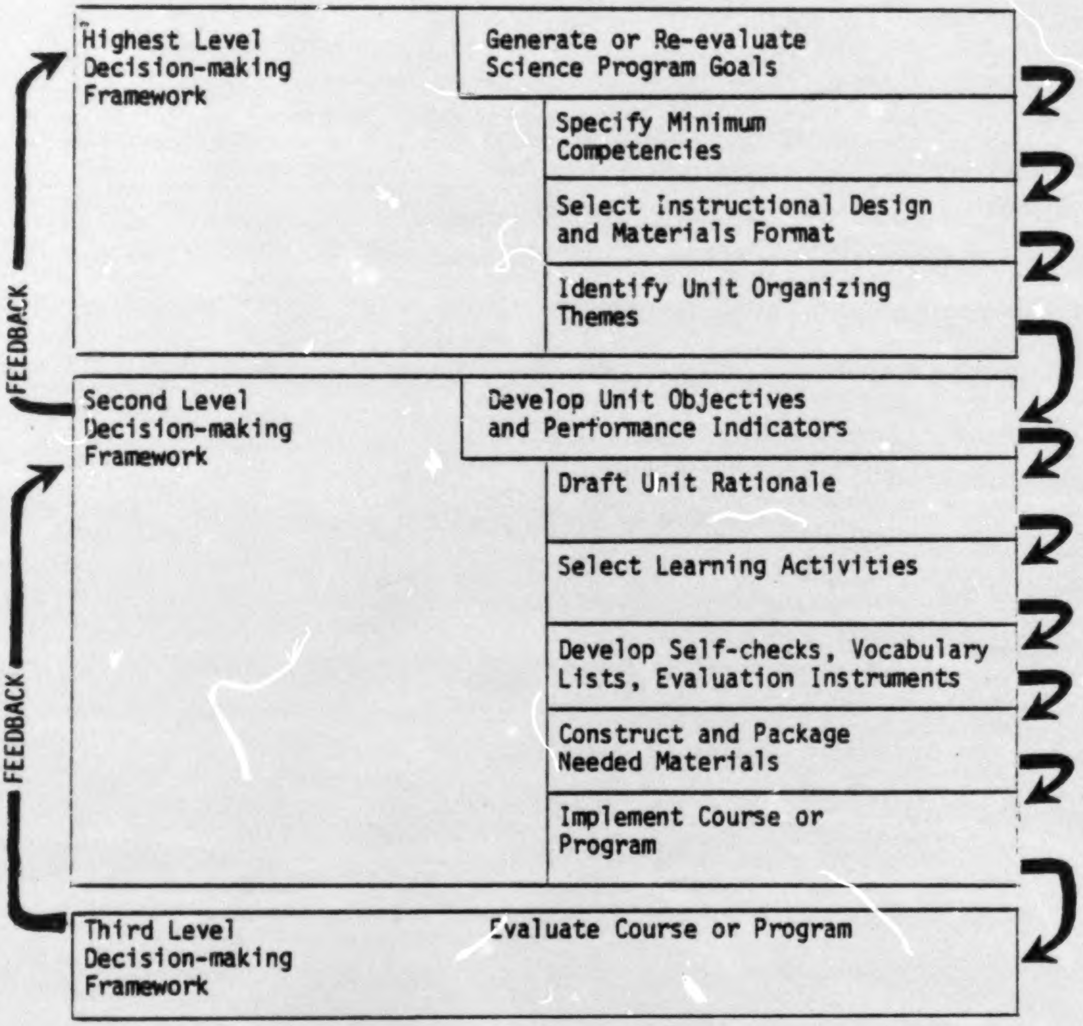
Highest Level Decision-making Framework
Generate or Re-evaluate Science Program Goals
Specify Minimum Competencies
Select Instructional Design and Materials Format
Identify Unit Organizing Themes
FEEDBACK
Second Level Decision-making Framework
Develop Unit Objectives and Performance Indicators
Draft Unit Rationale
Select Learning Activities
Develop Self-checks, Vocabulary Lists, Evaluation Instruments
Construct and Package Needed Materials
Implement Course or Program
FEEDBACK
Third Level Decision-making Framework
Evaluate Course or Program

Figure 1: Local Curriculum Development Process

PROGRAM GOALS

The first step in a competency based curriculum improvement project is to either generate or, if they already exist, re-evaluate the science program goals. These goals provide the highest level decision-making framework for grass roots (local) curriculum developers. They indicate the important general learnings that should come from the science program, and are therefore the basis for decisions relative to competencies and other content of the science program. Ideally, these goals will cover the greatest possible range of grade levels (K-12). It is imperative that the people responsible for classroom instruction and curriculum development be the fundamental developers of these goals. If this is not done, experience indicates that they will not be functional. Instead of being used for decision-making purposes during the evolution of the curriculum, they will only be pulled out of a file to meet a requirement during a standardization or evaluation visit to the district. This latter approach makes a mockery of professional educational curriculum development.

A number of valuable aids are available to assist science educators in either the development or re-evaluation of their science program goals. Among these are Framework for Science Programs (2), "School Science Education for the '70s" (3), and "Program Objectives and Scientific Literacy" (4). Similar resources exist for other disciplines.

A typical, yet functional, science program goal is stated below.

> *Learners will increase their knowledge of*
> *and ability to apply science process skills.*

What does this goal communicate about the science program? It indicates that science learning experiences on a continuing basis will be provided so that learners can become increasingly knowledgeable and skillful relative to science process skills. It goes without saying that these science program goals must be consistent with the school district's educational goals.

COMPETENCY AREAS AND MINIMUM COMPETENCIES

It seems reasonable to us that each science program goal should have several course competencies and at least one minimum competency that are derived from it. This is particularly true in relation to goals in the cognitive and psychomotor domains. Competencies are simply statements of desired student performance. Minimum competencies are those competencies that must be demonstrated in a program area in order to fulfill diploma requirements. It is, of course, possible that a single minimum competency may relate to several program goals. A sample minimum competency derived from the science program goal stated earlier is:

> *The student will be able to fit an organism, object, or substance into a scientific classification system. (5)*

The key consideration at this point in competency development is to insure that minimum competencies are clearly separated from other desirable and valuable competencies. The minimum competencies are in fact those "bottom line" levels of performance demonstrating ability to apply knowledge, understanding, skills, and/or attitudes that learners must accomplish in the course or program. The competencies that would be "nice if everyone could achieve" are not really minimal.

If all agreed-upon minimum competencies cannot be traced back to at least one science program goal, then the program goals must not reflect the true intent of the instructional program. Likewise, if there is a science program goal that no competency can be traced to, then the goal is either not functionally included in the program, not important enough to warrant goal status, or not readily assessable in the form written.

PERFORMANCE INDICATORS

Performance indicators are measures used to determine if competencies have been achieved. These can either be generated at this time or later. The advantage of drafting some sample performance indicators at this time is that if the staff cannot agree on what constitutes acceptable performance, the competency may need to be reworded in order to be functional.

An appropriate performance indicator for the sample minimum competency is:

> *Identify an unknown object using a*
> *given classification system. (6)*

At Rex Putnam High School, our performance indicators are included with the unit objectives and given to each student prior to beginning the unit. The performance indicator is keyed either to the competency statement itself or to a statement derived from it.

INSTRUCTIONAL DESIGN AND FORMAT

The curriculum development team should now determine the instructional format to be used based on the district's educational goals, the science program goals, the educational philosophy of the district, the minimum competencies, the findings of educational research, financial resources available, and the nature of the learners.

At Rex Putnam High School, we decided to utilize basically independent instructional units as the building blocks of our course. We operationally defined an instructional unit as a segment of instruction initiated with a set of 4-6 objectives, implemented with a collection of diverse learning activities, and completed with an assessment of the degree to which the objectives were achieved. Each unit would cover approximately three weeks of instructional time.

The designation of *basically independent units* was purposely included to give us flexibility in course and program evolution. In designing units, we do take into consideration what the learners have already studied and look ahead to what they will be studying in the future. However, no one unit is irrevocably tied to another. In this scheme, it is possible to partially or completely revise or replace a unit without destroying the integrity of the course as a whole.

Each unit in our course has the same basic instructional components. These are the rationale, objectives, learning activities, self-checks, and vocabulary list. Most of these components will be discussed in more detail later in this paper.

Because of significant philosophical diversity among the seven science teachers at Rex Putnam, each unit is organized in such a manner that it can be taught either in a traditional mode (e.g., all students doing the same thing at the same time) or by means of a semi-individualized approach. All of the staff now use the semi-individualized approach in at least some of the units. Semi-individualization, as we use the term, simply means that individual students or small groups of students will be working simultaneously on a number of different learning activities. The availability of activities is determined by the individual teacher.

ORGANIZING THEMES

Before establishing either course and/or unit goals or objectives, it is desirable to identify organizing themes for the units that will comprise the course. The organizing themes are simply the topics (e.g., *waves*, *model*, *measurement*, *energy resources*) around which the units are constructed. We believe strongly that any valid minimum competency deserves to have a full unit devoted to its topic. Note that the unit is built around the theme or topic of the competency, not the minimum competency itself.

Within a unified science program or course, four categories or broad types of organizing themes seem appropriate. The first of these categories is the collection of investigative and interpretive science process skills, such as *observing*, *classifying*, and *measuring*. Another strand contains those science concepts or "big ideas" that are common to most or all of the various scientific disciplines. So far, 29 different concepts seem to fall into this category. Among them are *perception*, *model*, and *energy*. Since science has as one of its primary goals the study and understanding of natural phenomena, this is a rich area from which to select topics. Relevant, locally accessible phenomena, such as radioactivity, a river, a mountain, or trees are usually of high interest within the community. The last area is problems of the science/society type. *Land-use planning*, *genetic engineering*, and *energy resources* are good examples. The functional aspect of this particular group of thematic categories is that it seems rather easy to identify appropriate themes for all science competency areas.

To illustrate this idea of deriving organizing themes from statements of minimum competencies, here are some minimum competencies and appropriate organizing themes for each:

Minimum Competencies (7)	*Unit Organizing Theme*
1. The student will be able to fit an organism, object, or substance into a scientific classification system.	*Classification (Process)*
2. The student will recognize and use a scientific model.	*Model (Concept)*
3. The student will know the metric system and will use common measuring instruments.	*Measurement (Process)*

Often a valid minimum competency is not clearly tied to any specific topic or theme area. When this occurs, the development team picks a unit theme from the large number of possibilities available. This is really a rather desirable situation, since the competency area can be studied within a currently relevant context. If energy supply is a hot topic locally, regionally, or nationally, for example, a minimum competency concerned with interpreting data could meaningfully be approached through a unit with this theme. The unit objectives would reflect the emphasis on interpreting data as well as acquiring basic concepts of energy.

An alternative approach for the generic or non-topic-specific competency is to include an objective that addresses it in several or all of the units. For example, the competency on interpreting data might fit appropriately into several units.

After themes have been selected that address all minimum competency areas, the developers should incorporate themes that would enable learners to develop other important science competencies as instructional time permits.

The first year of the Rex Putnam High School science program is a locally developed, competency based course required of all students. It contains 12 different instructional units with an average length of three weeks. The organizing themes and corresponding unified science categories are shown below. Those designated with an asterisk are themes specifically derived from minimum competencies.

THEME	UNIFIED SCIENCE CATEGORY
**Observation*	*Process*
Perception	*Concept*
**Measurement*	*Process*
**Model*	*Concept*
Radioactivity	*Phenomenon*
Cell	*Phenomenon*
Genetics	*Phenomenon*
**Classification 1*	*Process*
**Classification 2*	*Process*
Heat Energy	*Concept*
Energy	*Concept*
Mice	*Phenomenon*

COURSE OR UNIT GOALS

Once the organizing themes have been selected, a set of course or unit goals or objectives needs to be developed. These goals or objectives are actually competency statements, since they describe the desired learning outcomes from the unit. They represent the second level decision-making framework. The selection of learning activities for the instructional units will be based upon these objectives.

We at Rex Putnam have a strong preference for unit objectives over course goals or objectives. The rationale is simple. Each course should address each science program goal, even though there is no necessity for equal time within each course. That is the benefit of a science program: development of knowledge, understanding, skills, and attitudes evolves through the total school experiences in science. Therefore, we believe that the specifics as to how the goals are being addressed are best communicated at the unit level, where instructional activities and evaluation have a clear focus. The full collection of unit objectives for the course then clearly communicates the desired learning outcomes from the course as a whole.

In general, we have found traditional course level goals and objectives to be too general to be of any functional value.

"How many objectives are needed?" is an often-asked question. Our 12 units in the first year of science average 4.75 objectives per unit. We have a total of 57 objectives for the full year of required science. Too many to be manageable? Not at all! During any 3-week period we are dealing with only 4 or 5 objectives on the average. In addition, we pretest and posttest each semester with a 50-question, one period multiple-choice examination that addresses all of the objectives for the semester.

A MODEL FOR UNIT OBJECTIVES

We have found an objective format similar to that developed by Norman Gronlund (8) of the University of Illinois to be very useful. It is a two-column format that contains rather general statements as to learning outcomes desired in one column and specific actions indicating successful achievement (our performance indicators) in the other. An example from our Classification I unit is found below. (9)

The objectives of this unit are for you to:	*You will know you are making progress if you can:*
1. Increase your skill at using classification systems.	*1a. Identify an unknown object using a given classification system.*
	1b. Teach someone else how to use a classification system.

At Rex Putnam, the science department meets after school once or twice a month for about an hour to develop and/or revise program goals, competencies, unit objectives, learning activities and evaluation items. During the year, the staff also collects and files materials and activities that seem appropriate for the developed unit objectives. When released time or summer curriculum development workshops begin, the curriculum team has already defined the unit objectives and collected some materials; they are ready to write unit rationale & to adapt or write and sequence materials and activities into the course. Using short meetings over an extended time period to write goals and objectives and day-long work sessions to develop materials and activities seems to be the most efficient use of staff time.

Teachers receive additional pay for day-long work sessions, but at Putnam the after-school sessions are considered departmental meetings and teachers do not receive extra pay.

UNIT RATIONALE

We believe that learners must know why it is worthwhile for them to devote their time and energy to studying each unit, so we include a one-half page rationale preceding the objectives and other components of the unit.

The rationale focuses on two general aspects of the learning outcomes: the significance of the unit to science and, equally important, the value of the learning outside the science classroom in the "real" world. If a unit doesn't have legitimate application in both of these areas, we doubt its appropriateness for inclusion in the general education portion of the curriculum.

Here is the rationale for our unit on observation (10):

> *What we call science is really nothing more than one way in which people attempt to better understand the world they live in. One of its unique features is that it starts with observations of real things - some living, some non-living.*
>
> *In the game of science, the best observers are usually the winners! However, being a good observer pays off even if you aren't a scientist.*

> *The good observer is able to obtain more information from the environment. It may be the difference between drawing a blank or being successful on a hunting trip. Being a keen observer may assure that the clothes you buy will be the best available on the rack. (Wouldn't it be nice to notice the torn seam or missing button before you arrived home?) Or it may even mean that you will be more successful in science class.*
>
> *This unit has a number of activities that are designed to help you become a better observer. Among other things, you'll discover that certain types of observations have been found to be more useful than others.*

The development of a rationale is also a valuable exercise for the curriculum developers. It helps them to assess the genuine value of the unit and develop the necessary perspective for the selection of learning activities.

SELECTING LEARNING ACTIVITIES

With the unit objectives specified, the staff can select learning activities to match them. If the objectives have been generated independently of any given set of instructional materials, it is unlikely that any existing set will in itself be found to be completely satisfactory. A given text, or chapter from a text, may serve as the foundation of the unit, but selected activities from other sources such as programs, texts and films will probably also be included.

For most unit organizing themes, more activities are already available than could possibly be included. In this case, the development team will be utilizing an eclectic approach and selecting from a very wide variety of activities. In other cases, there will be limited numbers of existing activities, and some original writing will need to be done. Original writing is very time-consuming and should be avoided when possible. This is especially true during the initial periods of developmental work. As an example, our units built around the themes of *Observation, Perception, Radioactivity, The Cell, Genetics, Classification, Heat Energy, Energy,* and *Mice* were basically designed around existing materials. We drew heavily from the first year of the Portland Project (11), but added substantial numbers of new activities, questions and illustrations as well as rewriting some material.

On the other hand, our *Model* unit is original and unique, and the *Measurement* unit almost as original. We probably spent as much time on these two units as all of the others combined.

A surprisingly large number of existing materials are in the public domain, and therefore we have not experienced many copyright difficulties. In fact, I can think of only one picture that wasn't included due to difficulty in obtaining copyright clearance. We do, however, always cite the sources of materials used and when appropriate,obtain written permission before reproducing the materials.

The following seem to be important considerations during the process of selecting learning activities:

1. Learning activities should be selected after unit objectives have been drafted. However, some activities will lead to the addition, modification, and/or deletion of objectives. The process of selecting learning activities, in fact, refines the objectives.
2. If the curriculum development project involves day-long released time or summer work, the selection of unit themes and drafting of unit objectives should be completed prior to the extended work sessions. If substantial time outside the normal staff meetings is required to complete these tasks, compensation should be provided as a component of the overall curriculum development project. The most cost-effective use of extended work time appears to be in the activity selection and evaluation portions of the work.

3. Existing activities should be used whenever possible. Original writing is very time-consuming.
4. When selecting learning activities, attempt to maintain a good mix of learning modes - monomethodology tends to lower the levels of enthusiasm of both teachers and learners. In addition, learners tend to have rather diverse mode preferences. It would be very unusual to have a high quality unit containing fewer than 6-10 different learning modes. Among the many appropriate learning modes are reading, lecture, demonstration, discussion, computer simulated experiment, film, game, programmed instruction, laboratory and field trip.
5. If the units are unified science units, select activities that will provide diversity in science contexts. It would not be unusual for as many as ten different science disciplines to be represented within a unit.
6. Complete the development of units prior to teaching them. This includes any necessary manufacturing of laboratory equipment and/or packaging. Partially completed units are difficult and frustrating for teachers and students to use and may result in negative teacher and student attitudes about the course.
7. The greatest productivity and cost-effectiveness appears to come from five- or six-hour workdays during summer development sessions.

SELF-CHECKS

Since our materials are designed to provide successful learning experiences for cooperating learners, self-checks play an important role. A self-check is nothing more than a brief, self-administered evaluation designed to provide immediate feedback relative to the learner's current level of skill or knowledge for a unit objective. At least one self-check item is written for each objective. Scoring criteria are provided that identify minimum acceptable levels of performance, and instructions are given for actions to be taken if performance is below an acceptable level. We believe that the self-checks have been a major factor in increasing overall student success in our required science course.

The key to developing effective self-check items is to insure that they measure the desired learning outcomes described by the objectives. We achieve this by writing them from the performance indicators that are included with the unit objectives. Interestingly enough, many of our self-checks were developed prior to the time that the actual learning activities were selected.

Here is an example of a unit objective, performance indicator, and corresponding self-check.

OBJECTIVE (12)	*PERFORMANCE INDICATOR (13)*
Demonstrate a preference for quantitative observations.	*Identify from a list of observations those that are quantitative.*

SELF-CHECK (14)

Number 1-5 on a piece of scratch paper. Place a "+" by each number whose observation is quantitative and an "0" by each number whose observation is qualitative. When you are finished, check your answers against those found at the bottom of the page.
A student observing an insect collection noted the following:

1. *All have 6 legs.*
2. *All have jointed appendages.*
3. *Compound eyes are present.*
4. *Each insect has 3 body segments.*
5. *The skeleton is on the outside (exoskeleton).*

Answers: 1. + 2. 0 3. 0 4. + 5. 0 If you had any problems with these, read the material on page 4. If you still have difficulty or questions, check with your teacher as soon as possible.

REPRODUCING YOUR MATERIALS

Written materials that are selected for use may be reproduced in any number of ways, ranging from offset printing to duplicating or mimeographing. We have elected to print and bind our materials in three-ring binders in our school colors with the science course title and program logo on the cover. This arrangement has given us a durable, yet flexible, format for our materials.

STUDENT EVALUATION AND RECORDKEEPING

Students are evaluated on the basis of the degree to which they have achieved the unit objectives. Grades are determined by a point system, with points awarded for such items as laboratory writeups, problem-solving assignments, quizzes, and examinations. All of these graded activities are keyed to unit objectives and their corresponding performance indicators. In general, one-half of the total possible points must be earned in order to be achieving at the minimum acceptable level.

In the grade book next to the student names are columns with numbers corresponding to the minimum competencies for the course. When the student satisfactorily completes the performance indicator(s) for any given minimum competency, that competency requirement is checked off as having been fulfilled.

A student cannot receive credit for the course simply by completing all of the minimum competency requirements. To earn credit, all minimum competencies must be demonstrated and all course requirements (e.g., complete all required assignments, earn fifty percent of the total possible points) fulfilled.

CURRICULUM EVALUATION

Evaluation of our competency based, first-year science course has been comprehensive and ongoing. At the completion of each unit, all students complete a unit evaluation form. We solicit feedback on clarity of objectives, preferred learning activities, perceived value of the unit, perceived interest in the unit, and pace of instruction. This feedback plays a major role in the evolution of the materials and helps our students feel some ownership of the materials.

A pretest-posttest assessment of objective achievement is utilized each semester. A 50-question multiple-choice instrument has been developed that can be completed in one class period. Most objectives have two items that key to them, while a few have only one and several have three. A formal analysis of the results for the first semester was completed during the 1978-79 academic year. This will be repeated during the 1979-80 school year, and the second semester will be analyzed in a similar manner.

While a detailed discussion of the results is inappropriate here, a brief summary is probably of value. The pretest results produced a nearly normal distribution of raw scores with a mean of 18.67 and standard deviation of 5.11. The posttest results produced a distribution that was negatively skewed with a mean of 27.74 and standard deviation of 7.31. The reliability of the instrument was found to be 0.78 using a Kuder-Richardson formula 21 computation. We were pleased with the results, but expect even more positive findings next year as a result of improved learning activities, increased teacher competency, improvement of the test instrument, and modification of the testing arrangement.

Another important dimension in the evaluation of this course is its impact on overall science enrollment. Since the implementation of the competency based required science course at Rex Putnam, overall science enrollment has increased each year. Next year, for the third consecutive time, we will have both the highest absolute and percentage science enrollment in the history of our 16-year-old high school with approximately 70% of the students in grades 10-12 enrolled in science.

During the development of the course, our building curriculum/guidance advisory committee composed of parents, teachers, administrators and students was kept constantly informed of rationale, progress, evaluation, and other relevant information. They were provided with copies of the units to take home for closer study. Their very positive endorsement and support has given us some measure of parent response to the materials.

A FINAL WORD

We have found the development of competency based instructional materials to be intellectually stimulating and professionally challenging. In addition, we are convinced that it has produced a required science course that is far superior to any that preceded it. The product has had extremely positive acceptance and endorsement, and the process has helped to produce a dynamic, growth-oriented environment for the science staff. The opportunity to determine the goals of science instruction and select the learning experiences provides a degree of involvement and ownership that probably brings out the best of each of us in the classroom.

SCIENCE GOALS AND OBJECTIVES AT PUTNAM

LEVEL	FUNCTION	EXAMPLE
PROGRAM GOAL	states overall or general outcomes of student participation in science program or science courses.	Learners will increase their knowledge of science process skills.
MINIMUM COMPETENCY OR COURSE COMPETENCY	bottom-line expectation of all students enrolled in science courses; student must demonstrate minimum competency skills in order to receive credit for the course.	The student will be able to fit an organism, object or substance into a scientific classification system.
ORGANIZING THEME*	targets the specific content area for instruction.	Classification
UNIT OBJECTIVE	derived from the competency. tells the teacher and student the expected learning outcomes of this instructional unit.	The student will gain increased skill in using classification systems.
PERFORMANCE INDICATOR	describes the student performance that will certify student achievement of the minimum or course competency.	The student will identify an unknown object using a given classification system.

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*Categories of organizing themes for unified science:

1. Investigative and interpretive science process skills 2. Science concepts and "big ideas"

3. Natural phenomena 4. Science and society problems

APPENDIX 1

SOME DOs AND DON'Ts FOR LOCAL COMPETENCY BASED CURRICULUM DEVELOPMENT

DO involve classroom teachers in the development process from the beginning if you want the developed materials to be used.

DO consider using the $4,000 that a new textbook adoption might cost (400 texts at $10 each) to instead buy teacher time to develop and package course materials.

DO plan to use already-developed student learning materials and activities that fit the identified competencies, and to limit the amount of time-consuming original writing that will be done.

DO plan about 5-10 times as much teacher time to develop needed original materials as to adapt existing activities and lessons.

DO create the curriculum development plan with the participants to obtain their commitment.

DO set specific production goals (number of units, specifications for the units) with the participants.

DO write goals, instructional objectives, competencies and performance indicators prior to beginning the actual development and sequencing of materials and activities.

DO use short work sessions spread over longer time periods (e.g., one- to two-hour sessions over several months) to write program and course goals, competencies and performance indicators.

DO use extended work sessions (e.g., 5- or 6-hour days during vacations or released time) to actually write, sequence or adapt materials.

DO develop and communicate rationale for learning activities to students.

DO select and develop learning activities that use several learning modes.

DO consider using themes, topics and activities that cross disciplines, both within a department (e.g., science: biology-physics-geology) and between departments (science-social science-physical education).

DO include methods of providing regular feedback to students on their progress as a part of course materials.

DO invest in attractive print reproduction for your developed materials. The cost involved in quality typing and reproduction will be repaid in student and staff perception that the project is important enough to warrant the extra effort and funds.

DO plan and implement on-going evaluation of the developed course materials that includes feedback from both student and staff users. DO use this evaluation as well as measures of student learning in revisions of the materials and activities.

DON'T try to implement curriculum development from the top down; experience suggests that teachers will use most effectively the course materials that they have developed or adapted to the student needs that they perceive.

DON'T expect teachers to know how to develop curriculum without direct instruction prior to beginning the task.

DON'T use day-long teacher work sessions to develop goals, objectives, competencies and performance indicators. Better quality work and more efficient use of teacher time is achieved in shorter sessions over a period of time on these tasks.

DON'T plan more than six objectives/performance indicators per three weeks of instructional time. If you do, teachers and students will be discouraged by the number of objectives to be met.

DON'T ask teachers to try to use partially developed materials; the staff and student frustration level will interfere with student learning.

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10. Rex Putnam High School Science Department, Do You See What I See?, Milwaukie, Oregon, Rex Putnam High School, 1976, p. 1.

11. The Portland Project Committee, An Integrated Science Sequence, Portland, Oregon, Portland State University, 1970, Year I, Parts I, II, III, and IV.

12. Rex Putnam High School Science Department, Do You See What I See?, Milwaukie, Oregon, Rex Putnam High School, 1976, p. 2.

13. Ibid., p. 2.

14. Ibid., p. 5.

SECTION 6, APPENDIX F

PRODUCT K-12 Curriculum Guides

DEVELOPER Parkrose Public Schools
Portland, Oregon

DESCRIPTORS

Overview

Teachers from Parkrose Public Schools have produced planned course statements for their curriculum areas, K-12. The statements express student performance. In some of the guides, performance indicators are also given. For 7-12 courses, information is given concerning course length, number of term hours, grade levels, prerequisites, whether credit can be earned by exam, whether the course is required, selective or elective, and whether alternative learning opportunities are available. Program goals are listed along with a course overview.

Rationale & General Objectives

The Parkrose staff has worked since the early 1970's to implement educational programs which are well defined, based on performance objectives, and which land themselves to evaluation of results. Since that time there has been considerable effort and field testing to establish coordination and integration of the program. This has resulted in modifications designed to produce the best possible program for grades K-12.

Implementation Requirements

None.

Technical Assistance Contact
None.

Target Audience

These Guides were produced by and for the teachers of Parkrose Public Schools. Others have found them valuable resources as they prepare their own course statements.

Materials/Costs

Each document is priced separately and may be ordered from the district.

Evaluation (Evidence of Effectiveness)

See Rationale.

Assurances & Claims

None.

Supplier

Parkgose Public Schools
10636 NE Prescott
Portland, Oregon 97220

Available on loan from NWREL:
Parkrose Curriculum Materials: P.E., Lang. Arts, Personal Finance, Math, Performing Arts, Foreign Lang., Health, Art, Music, Social Studies, Science, Home Ec., Industrial Arts, Business Ed.

SECTION 6, APPENDIX G

HEALTH EDUCATION
CURRICULUM GUIDE
Grades 7-12

Parkrose School District #3
10636 N. E. Prescott
Portland, Oregon 97220

Revised by Health Education Staff Members,
July, 1976

1.	Marsha Curtis	Heights Junior High
2.	Janice Gorman	Fremont Junior High
3.	Judy Thompson	Heights Junior High
4.	Sharon Loffelmacher	Parkrose High School

Under the direction of
Max Brunton, District Administrative Assistant for Secondary Education

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Competency Based Education Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, OR 97204

MINUTES OF THE CBE NETWORK MEETING

SEPTEMBER 25-27, 1978

MEETING ATTENDANCE

The meeting of the CBE Network of the Northwest Regional Educational Laboratory (NWREL) was held in Portland, Oregon on September 25-27, 1978. Members present were Patricia Baca de McNicholas, Judy Bauer Zaenglein, Joan Brown, Donald Egge, Ann Freers, Norvell Northcutt, Gary Phillips, Edward Reid, Del Schalock, Jack Schmidt, and Ed Wingard. CBE staff present were Robert Gourley, Richard Wold, Pat Evenson, and Leslie Pickens. Attending one or more sessions were Larry Fish, Rex Hagans, Leo Myers, Vicki Spandel, Sharon Owen, Dr. Van Richards, Dr. Gary Hunt, and Bill Worrell. Site representatives present were Mike Tannenbaum (North Clackamas School District), Henry Kilmer and Ken Wells (Clackamas High School), Dr. Ed Schneider (Portland Public Schools), Larry Ayers and Linda Christensen (Jefferson High School), Tros Werth (Gresham School District), and Joanne Anderson and Sam Kennedy (Barlow High School).

Bob Gourley, Director of the Competency Based Education Program, called the meeting to order at 1:40 p.m.

CBE PLANNING ACTIVITIES

Dick Wold gave an overview of the planning activities the CBE staff has been involved in since March. He reviewed the process for selection of the three pioneer sites and how specific areas of concern were identified. Selection of participating personnel at each site and their functions were explained.

TARGETED DEVELOPMENT

Leslie Pickens and Pat Evenson introduced representatives from the sites and reviewed their process and progress to date. Targeted development activities were presented and discussed (attachment 1). Problems involving funding, teacher lack of time, and the need in the schools for more streamlined record keeping systems were cited. Network members shared concerns from their own areas. Exchange of ideas between the sites will be forthcoming. October 13 (State Teachers' Instructional Improvement Day) will be their first opportunity to do so after the initial contact made at today's meeting.

STEERING COMMITTEE DISCUSSION

Bob Gourley expressed the need for a chairman of the Network. Joan Brown favored choosing a person to head the group for one meeting a year, preferably someone here or close to the Lab, who can keep the program moving along. Discussion followed as to necessity for officers per se. A cadre group was suggested as an alternative. Rex Hagans prefers state agency representation in a leadership role. He expressed concerns about the advocacy role to NIE that will be involved and the limitations of a once-a-year meeting. They should be strong advocates of CBE concepts first and program second. Norvell Northcutt suggested that three persons be asked to serve in whatever role is specified. He noted that NIE looks carefully at its constituency. Bill Worrell felt that a facilitator with the ability to articulate is very important who will emphasize process over product. Bob Gourley announced that the nominating committee will meet at 5:30 p.m. to make recommendations.

LAB OVERVIEW

Rex Hagans gave an overview of the Laboratory, its funding setup, its history, funding projection, and sources of contracts. NWREL is seen as strongest in field based development, evaluation and product development. He hopes the Network can find a way to meet oftener than once a year.

CBE PUBLICATIONS

Bob Gourley presented CBE publications as follows:

- CBE Sourcebook (2nd edition) is now off the press. Over 1,000 copies of the 1st edition have been sold to date and the 2nd edition has a backorder of 400.
- Identifying High School Graduation Competencies has sold about 400 copies.
- Tracking and Reporting School-Leaving Competencies will be marketed soon. Leo Myers did the editing of this publication.
- A Guide to Relating Course Goals and High School Graduation Competencies will be discussed later.
- Beyond Minimal Competency Testing: CBE is a new book that should be very helpful.

Monday's meeting adjourned at 4:45 p.m.

STEERING COMMITTEE SELECTION

Tuesday's meeting convened at 9:00 a.m. Bob Gourley reported that nominations for the steering committee included Judy Bauer Zaenglein as chairperson, with Patty Baca de McNicholas and Don Egge as members at large. It was moved and seconded by Ed Reid and Jack Schmidt that the nominees be duly elected. The motion passed unanimously. The steering committee will help set agendas and do other things as needed.

DEMOGRAPHIC DATA

Demographic Data: Characteristics of Pioneer School Sites was distributed (attachment 2). It was suggested that the data could be sharpened as to what is meant by the terms used in the data (i.e., poverty level-be more specific, cite what standards were used, etc.).

LEVELS OF THE USE OF AN INNOVATION

Levels of the Use of an Innovation were distributed and discussed (attachments 3 and 4). Norvell Northcutt commented that the staff shouldn't be concerned if they don't get down to levels 4B, 5 and 6. Pat Evenson agreed that they probably shouldn't get beyond level 4A until the sites have been through the innovation at least three times. None of the sites have reached this point yet. Discussion of the levels and stages of concern about the use of an innovation followed. Pat Evenson defined the term "adaptive programs" as being adaptive in a building program course kind of sense but also adaptive for the individual student, i.e., another element of personalized instruction. The six indicators are a good starting point but you have to have a full set of indicators underneath them.

TECHNICAL ASSISTANCE

Dick Wold and Pat Evenson cited their work with the Riverton, Wyoming School District.

Joan Brown explained the CBC training sessions used in Washington, D.C. involving teachers and administrators. Counselors are also included in these sessions. Ann Freers mentioned the use of school board members and parent advisory committee members as additions helpful for support of policy and school budgets.

Don Egge commented that while the levels chart is interesting because it helps to ask the questions that have been asked this morning in terms of what are the operating definitions of those indicators, the indicators can be applied to any particular issue that you are involved with in the whole school setting but it is that set of acts which are the operational things around which analysis can be made, not the indicators. The indicators are a kind of qualitative thing in a sense.

Ed Reid would prefer to simplify the structure and process of definition but not lose the reality of the whole process. He sees this as essentially an R & D project, which means that at the end of the project we should know a lot more about how you get CBE going than at the beginning.

The problem of staff time limitations were seen as limiting the scope somewhat.

The project is people- and training-oriented, not record-oriented.

Bill Worrell does not believe that CBE is an easy thing to get into. All kinds of data indicate that it is a different way of looking at instruction. Most teachers have not set up goals and when pinned down they indicate they have not. CBE is a systematic approach to defining what education is all about. CBE is a way of thinking as well as a way of doing things and does not lend itself well to being plugged in like television. He cautioned against oversimplifying what CBE is all about.

QUALITY SCREENING CRITERIA

Bob Gourley distributed Quality Screening Criteria: CBE Promising Practices. It raises four generic questions that dealt with the utility of promising practices, and then describes a procedure on how we hope to use those questions as a basis for selecting the promising practices (attachment 5). He expressed concern with two questions: 1) Are there other questions we should be asking, and 2) Does the procedure make sense. What we are trying to do is take a look at those six indicators and the various audiences we are talking about (student, teacher, management and community) and identify documents and descriptions of practices that address those areas of CBE for those different audiences.

PLANNING MATRIX

The CBE Planning Matrix (attachment 6) was distributed and an overview given. Bob Gourley noted that if you take a look at our intervention strategy, we are trying to identify with our staff and planning groups the kinds of things they feel they need to do right now to get their act together.

Norvell Northcutt commented that in regard to the six indicators, four are the logical consequence of the other two. He feels the notion that a high school diploma should guarantee something is an uncomfortable one. He stated a preference for the word "prospectus", defining it as a publicly displayed statement of facts about the capabilities and limitations about that particular product that is prepared according to the accepted rules of accounting. He feels a prospectus, by this definition, could be issued as to the capabilities and maybe even the potentialities of a given student. Bob Gourley commented that what can be guaranteed is that the student demonstrated certain competencies at a given point in time according to given criteria. Gary Phillips commented that what CBE is really guaranteeing is not an outcome but rather a process that no longer makes a student entirely dependent on an institution but gives him the freedom to exercise some initiative in his own behalf, i.e., a reduction of the institution's role.

Bill Worrell cited the false notion that CBE belongs to the high schools exclusively rather than to the whole K-12 system. A better question would be whether the practice is currently in use in a school district. Joan Brown noted that the focus in NIE was on the secondary schools and that budgetary constraints have forced the project to focus on high schools. While the project isn't as rich as it ought to be from a developmental aspect, it is far more remedial in scope and practice by focusing on secondary students who have had a history of what the system has or has not done for them by the time they get to the high school.

Del Schalock pointed out that on the political level in Oregon the graduation competencies as they pertain to basic skills are being pressured to be pushed down to the pre-high school level for all kinds of reasons.

Patricia Baca de McNicholas asked if the Network might be able to collect promising practices from throughout the country and compile them. Bob Gourley responded that if the RDx gets off the ground it is a logical place to feed that kind of material.

He feels the message is not to become garbage collectors but to be relatively tolerant in how you define garbage. He saw this as an internal document for the staff to use as they take a look at material. Maybe a discussion of what guidelines the Network members need in order to collect and send materials to us would be helpful.

The morning meeting adjourned at 11:50 p.m.

PROMISING PRACTICES RESUME

The afternoon session reconvened with a resume by Judy Bauer Zaenglein of the morning's discussion on promising practices. The criteria for selection were too general but it would probably require trying to use those before they could be refined to the point of being terribly useful to the staff. The members felt it was important to identify promising practices K-12 at least for identification if not for documentation. The documentation decision would probably have to be made in the program within the limits of its resources. Concerns were raised as to what kinds of comments were desired from members of the Network once the abstracts were sent to them - what kind of comments would be most helpful to the staff in terms of GO or NO GO decisions. Members can be useful in identifying promising practices. CBE staff members will be making contact with the RDx staff in Philadelphia next month during a trip east to see what cooperative arrangements might be made. Each of the promising practices will be screened through the criteria. Bob Gourley noted that a brief description of the setting might give it a better context. Ann Freers prefers the use of the word "components" to "practices".

Ann addressed the preference of people wanting to talk to other people - they are not interested in "stuff". Dissemination of the 4C material in California needs the assistance of the library information retrieval people to help categorize it in order to acquire a needed technical overview. Bob Gourley mentioned that Maggie Rogers will be housing the RDx depository here in the Lab. If we can get the Network members involved plus the RDx staff that is probably all we can manage at this time.

Patricia Baca de McNicholas suggested that members could do this in their own areas as an advocacy role and as a support kind of system for the CBE staff.

Dr. Van Richards felt that one option, in relation to the chart, would be to substitute for the column heads the focus that you want to describe, i.e., a math program at the elementary or secondary level, and then the information that you plug in yourself is the level 1, level 2, level 3, etc. The components you would take a look at could be subject oriented or could be the use of human resources in the schools. Once you plug all the levels into the boxes you have a very adequate description of all those levels that everybody can understand. You utilize a program focus rather than an audience focus.

A discussion followed on proposed changes in the state minimum standards for graduation requirements.

SHARING

Judy Bauer Zaenglein reported that in 12 model districts in Pennsylvania surveys were sent out to help determine what they felt high school graduates ought to be able to do. A quarter of a million responses were received. Each had 60 to 75 competency statements that seemed to relate. The response was from 50% to 80%. About 50 competencies were on all the responses. Each district will now come up with a proposed program to implement the desired competencies.

Del Schalock reported that in a three county area in the Willamette Valley there are two tasks currently being undertaken. One is to establish operational systems for program evaluation. The other is a school effects study. Data is being gathered from teachers, students, and principals dealing with the school as a place to study and work. At the district level, perceptions are being gathered as to structural changes and procedures used, as well as cost estimates.

Joan Brown cited a rapid turnover in administrators and teachers in the Washington, D.C. schools. Their focus is on curriculum with behavioral objectives utilized. In 26 pilot schools validation processes are used. There is a continuing need for math and science teachers. Revisions in criterion-referenced tests are being done now in grades 1-9. Summer institutes are utilized. School people are trained in teams. There are 29 prototype schools. A leadership team, an instructional support team, and a management team were formed. An evaluation design is now being developed. There are 200 schools involved with an enrollment of 121,000. 94% of the students are black with about 60% at the lower income level. Special problems exist in D.C. due to rapid turnover in the board, city government, and school administration. The situation is very political.

On behalf of the evaluation committee, Don Egge presented awards to Bill Worrell, Bob Gourley, Judy Bauer Zaenglein, Ed Wingard, and Norvell Northcutt. AWARDS

Ed Reid reported that some districts in New York are looking at basic competency testing and a possible need for a network within the state. Booklets were put together taking Ruth Nickse's competencies and seem to be well done. A sample copy may be available from Wally Goodman, Westchester Putnam County Boces, Yorktown Heights, New York. Wider dissemination is being looked at and they seem to show a lot of promise. SHARING

Ann Freers reported that California has mandated minimum competencies as item #1 as of this June. Alternatives to the courses of study will be adopted in January and must be made available to all high schools. All students must be tested at least once between grades 7 and 9 and again before grade 12. All elementary schools must now adopt standards of efficiency. Sample competencies with assessment items are now available from Dick Stiles, State Department of Education, 721 Capitol Mall, Sacramento, California. Guide 2, Technical Assistance is recently available. She foresees the question of testing and assessment ending up in court. Instructional changes will probably occur as a result. School improvement programs is a new reform movement in California. Fairfield-Suisun School District and Newport Beach School District have achieved major development in identifying their competencies. Assessment is seen as not as strong. Proposition 13 has forced an emphasis on school finance issues. Surplus money is distributed on a block grant basis. Between 800 and 1,000 teachers will be laid off this next June in Santa Clara County which serves about a third of a million students. There is a lack of emphasis on CBE in California now. No new programs are anticipated. Low morale was cited and she foresees greater state control of education in the future.

The afternoon meeting adjourned at 5:05 p.m.

The Wednesday meeting convened at 9:00 a.m. Bob Gourley called attention to the promising practices abstract (attachment 4, page 4). Feedback indicates a need for us to give better instruction on the kind of reactions needed. Bob suggested the following procedure for Network dissemination activities: PROMISING PRACTICES ABSTRACT

1) Each member identify ten CBE-interested people with whom you have regular contact;
2) We send you eleven copies of abstracts of promising practices and developed products;
3) You review one set and send out the other ten for a similar review.
4) On the basis of the reviews we GO or NO-GO on RDx.

Dissemination would be done through RDx and through the Network group.

About 35 potential promising practices have been identified for review by the screening committee prior to abstracting. We will have to be selective in the material chosen for review. Feedback is needed from a fairly large group to be useful. Agreement was reached to batch the abstracts once a month, and abstracts will be duplicated here and eleven copies sent out, probably with a postcard attached. We will do direct mailing if a list of names is sent to us. A single sheet was suggested to save costs rather than by separate postcards, listing abstract numbers. Personal contact to the 10 people should produce a higher return rate, as would a cover letter or telephone call. Norvell Northcutt suggested utilizing adult clearing houses, and publishing a notice of the availability of this material. Intermediate agencies may or may not be effective disseminators.

AWARD

Bob Gourley reconvened the evaluation committee and presented an award to Bill Worrell.

PUBLICATIONS

Measuring Performance: Teacher-Made Tests booklets were distributed. Discussion of the contents followed. Ed Reid commented that he has found extensive use of multiple choice test questions a detriment by the high school level. Pat Evenson noted that teacher reactions have generally been very favorable to the booklet since it suggests alternatives to multiple choice tests.

Norvell Northcutt asked why promising practices were being collected rather than writing your own series of monographs on CBE important issues such as how to assess a competency. Pat Evenson commented that this will also be done. Leo Myers will do most of that kind of writing.

Bill Worrell feels positive about the approach that says there are certain measurement instruments and approaches that are more suitable for certain kinds of things. Judy Bauer Zaenglein expressed concern over the use of the word "promising" in promising practices. It implies some quality standards over what is deemed by this group and by the CBE program to be a promising practice for CBE. Ann Freers suggested an alternative phrase: relevant CBE practices.

Competency Based Curriculum Development for Rural Secondary Schools in Alaska: A User's Guide was perused. This is material Pat Evenson developed with the Lab on the basis of her experience in Alaska.

What is Competency Based Education? (attachment 7) was distributed. Bob Gourley commented that we have taken a position on what we think CBE is all about but it isn't in any great detail at this point.

Bill Worrell inquired whether in terms of quality input back to the project has it been discussed and the merits or difficulties considered of keeping the review to just this Network and sending them all of the documents so they can look at the entire bulk as opposed to sending out an abstract. Bob responded that our position is to look at the abstract possibility and see if it might work as this would be a good way to cut costs, and then get a broader scan from your ten people at the abstract level versus cranking out copies of things we think look good and asking you to respond. Jack Schmidt suggested confining it to only a few people at first and then abstracting it. Joan Brown requested that if you shortcut it she would like to be sent the whole piece.

Pat Evenson paraphrased Bill Worrell that he would like an abstract and something more so they would have more of a flavor of the document, i.e., a sample project. Bill Worrell feels this should be carried a step further and the person doing the initial review should comment as to how it fits and how the reviewer feels it fits.

Ann Freers suggested dropping the postcard questions "Please send me a copy of the document" and "I have enclosed a CBE document you might find useful" and substituting "I am ordering the document" and "I have something relative to CBE that might be helpful". She will send us a format that might be useful which is an offshoot of a facilitator project abstracting materials this past summer.

The CBE staff will have to set the context - i.e., "This is where it fits", not just "Here is something".

FUTURE NETWORK MEETINGS

Future meetings of the Network were discussed. Bob Gourley commented that one meeting is budgeted between now and next fall. Hooking up with a conference somewhere would save on costs. AASA, AERA, and ASCD conferences were mentioned. Several members noted that out-of-state budget crunches will cause a problem in the future. Rex Hagans prefers a 3-meeting arrangement during the next year, with the Lab funding one meeting, a committee determining by means of variable funding where the second meeting could be held, and the Lab attempting to come up with funds for a third meeting. He suggested a meeting in conjunction with a conference somewhere in February, March or April as the first one, the for-sure meeting in early or mid-summer, and the third one in September or October hoping that funds can be made available. The Boulder conference in mid-June was suggested as a possibility, as was the AASA curriculum conference in Denver in mid-July. Ed Wingard suggested listing the conference dates and asking for preferences as was done for this meeting. Bob Gourley proposed having the steering committee come to a conference with others attending as possible, and utilizing the mails as much as possible.

The consensus was to aim at a February meeting at AASA in New Orleans for the steering committee and others who can come, a summer meeting with Boulder and Denver conferences as possibilities, and leaving the third meeting open for now in October, 1979.

Bill Worrell announced that the national assessment program is now within the brotherhood of NIE. National assessment now is a statutory base legislated by Congress this week. The control function is totally outside of NIE.

Bob mentioned the course goals document is available for those interested, as is the CBE brochure.

The meeting adjourned at 11:25 a.m.

Competency Based Education Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, OR 97204

MINUTES OF THE CBE NETWORK MEETING JUNE 14-16, 1979

MEETING ATTENDANCE

The meeting of the CBE Network of the Northwest Regional Educational Laboratory (NWREL) was held in Denver, Colorado June 14-16, 1979. Members present were Judy Zaenglein, Ed Wingard, Gary Phillips, Jack Schmidt, Ann Freers, Don Egge, Ed Reid, Del Schalock, Reggie Yancey (substituting for Joan Brown), and Wanda Gray (substituting for Barbara Mathis). Persons not attending were Patty de McNicholas and Bill Worrell. Michael Fullan and Norvell Northcutt have resigned from the Network and replacements will be sought. CBE staff present were Bob Gourley, Ron Smith and Adelle McEachern. The meeting was called to order at 1:55 p,m.

SLIDE TAPE PRESENTATION

Bob gave a slide tape presentation entitled "CBE: What Is It?" developed by Dick Wold, Pat Evenson and Leslie Pickens. Discussion followed on wording and general format. Distribution will be through loaners to the regional resource dissemination centers as soon as approved by the Lab. Reggie felt it was well organized with an excellent content and script, but questioned the use of some of the slides with simplistic art work. Ed Reid feels the script is great as long as it is utilized in education and not with the general public. Ann felt the language was too heavy to show to her school board.

Del questioned the rightness of the titles chosen to describe the characteristic skills, i.e., the language used, and wonders about the words that follow the characteristics. Wanda agreed and Bob commented that this can be sharpened up. Del found the content to be very good but the descriptors are confusing and misleading. Jack noted that the six descriptors are pulled out of Spady's definition. Reggie commented on the use of the two terms "individualized approaches" and "individualized instruction" and discussion followed. Don expressed concern as to what they are, i.e., what they are intended to be. They give a general criterion against which to know whether improvement is being made, but beyond that general look they don't seem to fit into the scheme of things; they are not policies, goals or organizers. Jack suggested considering the particular audience that will be exposed to the presentation.

The question was raised whether they are indicators or principles. Ann sees them as enablers that don't have to be present but, by their presence, they frequently make it more possible for the emphasis to be on the competency. The areas are not defined very well by the indicators as presently listed.

Ron sees overlaps in the kinds of phenomena that were being described by those titles and considers them just abstract descriptors, i.e., things that might be occurring in the real world. He first considered the overlap and then whether they were really characteristics of CBE or not. He saw some of the indicators as describing characteristics of CBE that were essential and some as design criteria that may or may not be applied to CBE depending upon your orientation and where the outcomes of the system are. He is not comfortable with the six indicators - feels they are too abstract and he isn't convinced they are essential parts of CBE programs. He now sees CBE as a performance-based approach to education but with the addition of some sense of the purpose of education. The purpose is reflected in the emphasis on life-role focused outcomes.

Judy perceives them as being of at least two kinds: 1) the kind you would call essentials, and 2) the kind that are really a range of options within something that is essential, such as in outcomes there is a range of options (Ron's term "design options"). What are those system options then for each of those essentials, whatever those essentials may be? Assessment seems totally missing in the set of essentials. What are the maximal effects of certain decisions made within those design options, so that several years from now the Lab may be in a position to say "Given outcomes, the life-role focus, the attending interdisciplinary approach in the instructional mode and this range of assessment strategies, you may maximize your student achievement." As you put these design options together differently you get a basis for doing some CBE research.

Bob feels that two things clearly differentiate CBE from other outcomes-based systems - life-role focused outcomes and public involvement in the determination and display of outcomes.

Del's sense of systems theory is that you make explicit what you want to achieve and give evidence of how not to achieve it and, based on that evidence, if you haven't achieved it you do something else to achieve it.

PROGRAM OVERVIEW

Bob gave an overview of the CBE Program's relationship to the Lab and reported that the Program is forecast only at an 80% funding level in the coming three years. Valdez, Galena and Delta Junction contracts progress was reported. Two publishers are interested in the CBE Book, with Teachers College Press the most likely publisher. Del urged sending a copy to each Network member as there is outstanding material contained therein. Bob reported on the meeting recently at the Lab of the planning groups from the three high school sites.

MODULES DISCUSSION

The five new training modules (I, II, IV, VIII, IX) (attachment 1) and the CBE Recordkeeping Report (attachment 2) were distributed. The modules were designed for those with experience as trainers who could use the modules as stand-alone workshop sessions for teachers. Reactions to this goal and to the marketability of the modules were requested. They will be read overnight and reactions given tomorrow. Bob feels there needs to be more detail in the outline for trainers. They have been tried out at Barlow and Jefferson High Schools and in Georgia. In response to Don's question about possible use of student modules, Bob noted it was considered by Barlow but the idea was discarded. Hood River currently is being considered as a site next year but no formal negotiations have begun.

Ann suggested doing developmental activities only when people put money on the line, as is the case in Santa Clara County. Bob responded that all three schools did buy teacher time.

SPECIALIST REPORT

Ron reported on his work with a Jefferson teacher on classroom management and discipline problems.

SITES REPORT

Bob commented that the strategy this first year was to give the three groups a shopping list to work from that would be helpful to us in coming up with products that relate to CBE.

Del asked how all of the energy expended working with the sites and Valdez hooks into and uniquely furthers the business of CBE. Bob responded that in Valdez you have a set of measurable K-12 outcomes (subject matter outcomes) that could be the basis for setting up an outcomes-based system that will relate closely to CBE. The generic kinds of things done here were based on the idea that if we say one of the elements of CBE is individualized instruction then here are ways to go about doing it.

Evidence of impact on the lives of students, teachers and principal is a matter of concern to Del. He sees an obligation to say what difference the system can make as well as what the cost implication is. Don suggested a management information system in each site and if the data can be collected on a classroom and school program level in terms of some indicators those results can be evidence that the system has made a difference. Bob responded that an evaluation design has been written which includes students and teachers but lack of money has precluded implementation. The question is whether each school staff member should do this on their own or whether CBE staff members should.

Wanda feels a model evaluation system or design could be used by a local school or school system before they start doing CBE so they have something to measure their impact against.

GEORGIA WORKSHOPS

Wanda reported on the three days of workshops (16) that were presented in Georgia by Pat Evenson and Leslie Pickens interspersed with State Dept. of Education personnel to 250 school principals and curriculum directors, and spoke of a very positive reaction. New management systems and new courses were presented and ways to implement new curriculum via CBE were given. Brochures describing Georgia's new statewide program were distributed. The State Board has adopted a policy which includes 20 broad competency statements, requiring high school graduates to demonstrate applied performance in these competencies. 10 have to do with basic academic skills and 10 with life skills. 10 pilot districts have been involved for 2½ years. Schools can add to or refine the basic competencies.

MODULES DISCUSSION

Discussion ensued on the five modules entitled "Towards Personalized Instruction" (attachment 1). Ann is bothered by the graphics on page 15-I (specifically the arrows). Del sees page 15 as the central focus of the module, yet isn't sure how the theories of motivation on the preceding 14 pages relate to what is being recommended on this page. Pages 1-14 are interesting cognitive activities and may or may not have any relationship to page 15. The consensus of the group was to delete the word "with" from the title of module I and insert the word "through." Ann prefers the term "individualized attention or approach" to "----instruction." Del suggested page 13-IV should be in module I. He would change "individualized" to "personalized" as column headings to better fit the material. Judy would like to see the two columns reversed, stating the positive aspect first. Ann questioned the seeming incongruence of the title "Towards Personalized Instruction" when so much emphasis is placed on individualized instruction. She feels one or the other should be used.

Page 3-II should be corrected to read "Joyce, Bruce R."

Bob feels that near the front of each module a description should be inserted which shows how the module fits into our concept of CBE.

Don questioned whether "dissatisfiers" shouldn't be "satisfiers" on page 3-I (#4). Ann likes the checklist on page 19-I but would place it near the front of the module. Don suggested a CBE staff member sitting down with Jim Hargis, who has built and streamlined individual vocational education modules, to get some suggestions.

Ann found pages 5-7-II confusing, especially "Cycle Rider" on page 6. The reference to Mt. Hood Community College on page 9-I should be expanded if this is to be used nationally. Don suggested contacting Gleason Eakin at MHCC who could list other places around the country.

Ed Reid was very impressed with module II but has some reservations about cognitive style, and sees the student attitude survey as threatening (page 33).

Wanda noted that this module was one of the workshops done in Georgia and elicited much interest and followup.

Ann feels module II may have legal implications in other states, as California has restrictions on attitude information questionnaires, and a warning should be written in the module to determine what is legal in each state.

Transparencies will be included for people to make, and tapes for teachers could be incorporated also, according to Bob.

Don cited the lack of an introduction, the lack of flow, and the pages are jammed up.

Del suggested changing module title to Student Differences instead of Ability Levels.

Don commented that if the thing that makes CBE different is in addition to the systematic approach to learning management but of also the life-role focus then each module should reinforce these two things. He kept looking for the life-role focus and feels the major themes should be reinforced frequently.

Ann didn't really see CBE tied in until module IV.

Don sees a lot of parts but wonders where's the thing that shows the whole picture - how does it all fit together?

One of the things in motivating students in a CBE program is the inherent utility of those outcomes to them later in life, according to Ann, and that never ties in. Del feels this could be tied in to module I.

Ed wonders if a general graphic is needed to show how each module ties in to the general scope.

Del questioned who developed the student survey on page 37-II. No one knew, and possibly copyright problems could occur.

Del asked about the timeline for field testing the modules. Ann questioned whether the tie-in to CBE should be made more precise. She feels the modules need reworking if they are going to be marketed with the CBE Program title at the top of each one.

Wanda suggested letting the Georgia people field test it with an eye toward possible revisions, rather than having the writers revise it.

Jack wondered if the various audiences had been considered, i.e., evaluation, assessment, etc.

Module IX concerns Judy in an affective way. By using the Title I example it reinforces the teacher's notion that we only evaluate programs for which there was a federal mandate. Ann feels the AIP material is probably already in the Lab. It is written on the school administrator and resource teacher level and some of the material can be used on the classroom level. What the intention really is for the training should be carefully considered in Jack's opinion. This is a good place to tie in the relationship between program evaluation and CBE (Wanda).

Del feels it is difficult to hook module IX to program evaluation as it is in Oregon, because the level is too general. He finds the evaluation cycle (page 29-IX) uninformative as to what needs to be done to determine program effectiveness. He wonders how useful the material is and finds a lack of information to measure teacher effectiveness. Ann finds the title "---- Teaching Effectiveness" a political issue that may be out of place here.

The flow chart on page 14-IV caused concern. Several Network members noted they do not use them as initial handouts because many people have a negative reaction to flow charts. The correct order of the steps was discussed but hold off on the chart. Del feels #2 should be #1 (interpret competency) and follow up with #5 (pretest). Judy read 2-5 in a macro sense where you do a domain specification process.

Ann noted that you have to start with an analysis of the competency if you are talking CBE. You don't start with a student. You have prespecified outcomes and those outcomes are the guiding principle for everything that comes from that.

Re managing instruction, Don mentioned you could probably find five or six main functions, the first ones being programmatic and the others implementation and adaptation for the particular student which are separate things. By looking at each of these functions on a separate page you wouldn't be as likely to turn people off. Teachers play a role as program managers as well as instructors interacting with a student. Labeling of planning and development functions for teachers is helpful to combat the feeling of lack of teacher involvement in planning and development (Judy). Don sees a value in simplifying the message and, using it symbolically throughout, fleshing it out where appropriate. This may be one of the more significant things, i.e., to use it as an organizer, looking at it from the teacher's perspective.

Jack suggested considering packaging the modules on different levels - required things, orientation, and in more depth. Packaging as workbooks also is a possibility.

Don presented a proposed system framework.

Assuming a fairly clear understanding of the rationale of CBE, you need some sort of structural framework to implement it. You need to sort out those things that relate to managing the program (administrative) and that relate to managing the individual student learning. Perhaps a few major components could be developed that would be consistent in the discussion of each module so it would be more apparent how it all ties together. You could lay out the various tasks or functions, determine where you want a module, and develop a workplan to fill the gaps or needs, with instructional materials for each. Then the staff would work with clients, determining by assessment or analysis what level they were at as a starting point. The instructor would constantly reinforce the broad components but not have to deal with all the details. Teachers, understanding the pieces, would eventually get the Gestalt of it. Then you would have a framework in which to present the modules. This system is suggested for the staff's rationale, not for all participants.

CBE SYSTEM FRAMEWORK

Ron described his background prior to joining CBE two months ago. Emphasis was on behavioral psychology and systems theory. He explained the putting together of the CBE System Framework. He sees CBE as a generic process and has taken a look at CBE as an effective instructional system at the school district level. He divides the school district into three discrete domains - instructional, management and support subsystems and then defines how each domain is composed (Components-page 3). He has tried to define what teaching is in a generic sense.

Don would like to see more emphasis on program rather than district. The definition of a program and a system are nearly the same - all pieces work interdependently to achieve a certain end. Analysis of a program must be done at the school level.

Ron sees two questions as relevant at this point: 1) What does a CBE system look like, i.e., what specific functions have to be in place (generic level), and 2) How do you implement it?

Jack would change the title of page 3 from "Components of a School District CBE System" to "Components of an Educational System." There was general agreement on this point.

Del feels that CBE requires three things: 1) Attention has to be focused on learning outcomes of an applied performance nature as well as other relevant outcomes, 2) Evidence as to the extent to which these outcomes are attained for each individual student and for students collectively, and 3) You must make 1) and 2) public (this has to be negotiated with the public).

If the purpose of CBE is to improve the effectiveness of instruction, is that a legitimate outcome?

CBE, if it must err, should err on the side of simplicity, with the probability of understanding, rather than on the side of overkill with the threat of presumptiveness about incompetence (Del).

Jack feels it is important to determine how you should balance the program and resources, so that while working on the detail level you are also performing the proselytizing function.

Ron would never consider using the CBE System Framework as a representation of CBE to any other audience. In that case he would use simpler terminology while remaining faithful to the underlying technical analysis of what CBE is. Before talking about it in simpler terms a thorough technical analysis needs to be done.

Don pointed out that policy makers or managers have to confront 1) outcome, 2) effectiveness, and 3) improvements. CBE primarily is the business of confirming these in terms of real life and making sure that confrontation is made. Instruction (the delivery system) somehow ought to be redesigned to reflect and be responsive to that confrontation. If you focus on instruction and support you may never confront outcome, effectiveness and improvement. Therefore, the priority of the Program ought to help focus on that confrontation aspect.

Dealing with the outcomes aspect of CBE systems is of first priority in building the system (Ron). Whenever technical assistance is provided to a person or agency you have to start from where they are (Del).

This project must give conceptual guidance and clear information (Del) and you can't let the emergency of the immediate circumstances dominate. To design this Program and its products in a manner that meets the obligation to inform the nation about what CBE is is essential.

Ann cited the need by the pioneer sites to make a philosophical commitment to move to the confrontation level.

Don would prefer to see the confrontation issue up front in laying out the framework rather than in the present order and follow it with instruction.

The matter of choice or nonchoice in public education was discussed. Wanda noted that public education is not a matter of choice. She feels the instructional materials are well worth developing as they tend to make CBE more humanitarian and less authoritarian. The instructional workshops also tend to alleviate authoritarianism. Gary noted that authoritarianism is inherent by virtue of being born into and being a part of a community living pattern.

Ron asked for a current definition of CBE. Ann responded with Del and Jack's version: Attention focused on learning outcomes of applied performance nature plus others evidenced to the extent to which outcomes are attained for each individual and group and the use of the information gathered from 1) and 2) (preceding page) for improving the attainment of 1).

Del talked about outcome achievement. He feels that correction is an inevitable part of the educational system. The dialogue between educators and the public must be improved.

Jack favors presenting alternatives for the sake of educating people and to also keep them thinking of alternatives. Bob noted that the staff plans to present alternatives in each case.

Bob again mentioned the five handbooks from the EBCE Program as the kind of final document which could come from the CBE Program.

CLASSIFICATION MATRIX

Ron distributed the CBE Program Products/Processes Classification Matrix (attachment 3). Discussion followed on what is in cell 19 - at the school district level program coordination. The four subcomponents are: Goals/objectives hierarchy design and maintenance, Program logic analysis, Time control, and Planning and program revision.

Speculation on how we might develop concepts in relationship to a particular component at a particular level of application would include evaluating a set of design criteria, doing a fine component analysis of what planning and program revision is at the school district level, developing a generic model of it, collecting some promising practices illustrating how it is worked out in the real world under certain conditions, and developing some related products, perhaps even a training module for practitioners, or creating examples of what a planning program revision looks like at a district level under the constraints of CBE. Ron noted we are looking for a way of organizing and classifying development activities and promising practices collection activities. This could be done with each component at each level.

Del's reaction to the matrix is that it is useful to someone somewhere. He finds it overwhelming and too detailed. Ed Reid sees it as a good blueprint for research. Judy likes it as a classification mechanism. Ed Reid noted self-directed learning is a competence, a strategy, a means and an end at the same time. There is knowledge available on how to use this material properly and people who know how to use it. Ron would like to collect what they know and adapt it. To do that, we need to know what it is we want in the first place.

Don pointed out that in terms of the mission of the project and the Network there are many people who are concerned about these elements and doing a lot of good work, but none of them that we know of are trying to make order and sense out of how they all fit together so they can be collected and examined as parts of the system, and this is the power of the mission of the project.

Del will mail out the design used in 14 midvalley districts in Oregon to Network members. The data was taken only at the school level and now will be taken at the classroom level when allocation of time, time on task and achievement will be observed. This has not been costly (about $20,000) and this included reports back to school districts (management information). The data includes pupil attitudes toward school and subjects. The pioneer sites may be approached about using this methodology. The data goes on discs and is sent to the big computer at Oregon State. He will check with the data manager and send the information out.

PRIORITY
CBE SYSTEM
COMPONENTS
AND ISSUES

Bob introduced Priority CBE System Components and Issues (mailed May 30). Judy feels a key criterion would be that this was something that was not being developed at another site, that with existing resources we should go where the need is the greatest.

General design (page 2) questions are primarily a staff concern and secondarily applicable to people the staff works with, while implementation issues are largely questions that would be addressed outside the staff. The priorities were set by the CBE staff. Jack sees the main priority as identifying or developing the major areas of staff development for others, simply defining sequence tasks and pulling things together to help others define sequence tasks.

Among the first things that need to be dealt with are outcomes, building hierarchies and the measurement assessment piece with it.

Bob reminded the group that one of the first things the Program did was to collect from districts willing to send them a list of competencies, computerized them, and came out with 77 competencies that indicated what was going on at that time. Ann asked if the 77 competencies are worded in such a way that they must be demonstrated through some kind of an applied performance. Bob replied that they are for the most part. Ann feels the 77 should now be refined and cut down by the staff and examples of ways they can be assessed should be tied in. Bob would like to see the 77 cut down to about 30.

It is only when you aren't getting toward final behaviors that you have to go back and do task analyses (Ann). She has trouble working with people on the abstract level, and needs assistance in that area.

Judy would prefer fewer competencies purer in the life-role focus, and will send samples done in the affective domain.

Bob would prefer having the staff spend more energy on the issue questions. The focus in the past has been on development. He feels some sample enablers could be built from rep. samples and Valdez materials. Del sees this as a big step toward the reality we are trying to deal with. Judy feels the Network can help with this as this is the mode of staff development in the next six to eight months at the sites.

Don noted that the Oregon Department of Education has identified 13 to 15 competencies and the 77 would be seen as performance indicators.

Gary would find an ideal scenario helpful. Bob feels Hood River possibly could be useful for that purpose. Judy recommends talking to students and administrators.

Bob hears the group saying that Priority CBE System Components and Issues would be very helpful as a resource for staff training or as a publishable document. With samples in the back, the upfront section would present issues in identifying competencies for districts interested in getting into CBE. Issues could be addressed in identifying enablers and performance indicators and test items. Del feels this document is not just a training manual but is also an awareness generator.

NETWORK RECOMMENDATIONS ON CONTINUATION PROPOSAL

The format of Network recommendations was discussed. Consensus was reached on the following Network statement: "Given the progress which the CBE Program has made toward a conceptual definition of competency based education and its role in changing educational systems, we strongly support the need for continued work in this area which can enhance regional and national understanding of the concept and provide options for its implementation.

The primary concern of the Network is that the activity of the Program continue to focus on the core principles: 1) focused attention on learning outcomes of an applied performance nature, 2) evidence as to the extent to which such outcomes are obtained, both individually and by groups, 3) use of said information for improving the educational system's effectiveness, and 4) public knowledge of the desired outcomes and their attainment."

General comments were as follows:

GENERAL COMMENTS

1. Show growth/progress toward mission across 5 year period.
2. An evidence of formative and summative evaluation:
   - o needs determination
   - o priority setting
   - o field testing
   - o training
   - o effectiveness of dissemination
   - o targeted announcement of publications
3. Page 5 - active targeted announcements (details-audiences).
4. Identify the elements of the system.
5. 2.4 - relationship to the core principles.
6. Lack of specificity and interrelationships.
7. How are work components related to mission chart?
8. Rationale is needed.

Don requested that drafts and evaluation forms be sent to Network members.

Five Year Narrative comments were as follows:

FIVE YEAR NARRATIVE

2.1 Mission and Goals
   - o 4 core principles
   - o add management questions

2.2 Needs
   - o lack of specificity and lack of attention to the 4 core principles
   - o move the second paragraph on page 8 into this section

2.3 Objectives (Jack feels it needs editing)
   - o an understanding objective first
   - o continue to work on clarifying what we mean by integrated CBE systems

2.4 Procedures
   - o (last sentence) "Program staff will continue to participate," etc. (Jack)

2.5 Facilities and Collaborative Arrangements (okay)

2.6 Dissemination Plan (Ann feels it needs editing, Jack - more detail)
   - o edit for conciseness
   - o add detail on past and future activities
   - o expand brokerage bank

2.7 Organization, Management and Staffing
   - o change chart to show relationship between mission and components
   - o change Director to Direction on chart (Ed)

Priorities from yesterday's meeting:

PRIORITIES

1. Principles of designing an assessment plan.
2. Competencies - issues and concerns.

   Enablers PIs

   measures promising practices ⟷ application

3. How do you get staff and field people to focus on the 4 core principles?
    - o attention is focused on learning outcomes of an applied performance nature
    - o evidence as to the extent to which outcomes are obtained for each individual and group
    - o above 2 are public
    - o use of the information for improving the attainment
4. CBE scenario or role changes.
5. Set of guidelines and questions on how the 4 core principles would affect our school (Spady, PDK 76). ELUSIS - The American High School Ideal.
6. Handbook for CBE directors (down the road).
7. Staff development models the system.

EVALUATION AWARDS

Evaluation awards were presented to Wanda, Ed Reid, Ed Wingard, Adelle, Ron and Don.

NEXT MEETING

The next meeting probably will be held in Portland in September or October. Possible dates will be sent to members as before. Some possible agenda items include:

1. Draft Handbook for CBE Directors prior to meeting.
2. Staff/Network develop set of questions to lead people from zero to utopia.
3. Get materials to Network in advance. (Don - send out half page of questions.)
4. Promising practices discussion.

The meeting was adjourned at 11:50 a.m.